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ABSTRACT

A detailed review is presented of some of the major research on job satisfaction conducted in the past 40 years. The information is discussed in five major sections, each introduced by a series of related questions, under the following headings: national trends in job satisfaction, 1958-73; distribution of job satisfaction in the work force (by occupation, sex, education, and age); what Americans want from their jobs (national sample, white collar, blue collar, and women worker's preferences); the importance of job satisfaction (from the perspective of the employer, the employee, and society); and new approaches, strategies, and findings (goals to be achieved or ignored, necessary assumptions, matching workers and jobs, training, changing the job--hours, bases of compensation, supervision, and work performed, and evaluating the change). Four pages of references are included, together with appendixes covering: characteristics of national surveys cited; problems with single-question measures of overall job satisfaction; sampling errors at the 95 percent confidence level; percentage of "satisfied" workers 1958-73 by race, education, age, and sex; and mean job satisfaction in 1973 by selected demographic and occupational characteristics. (SA)

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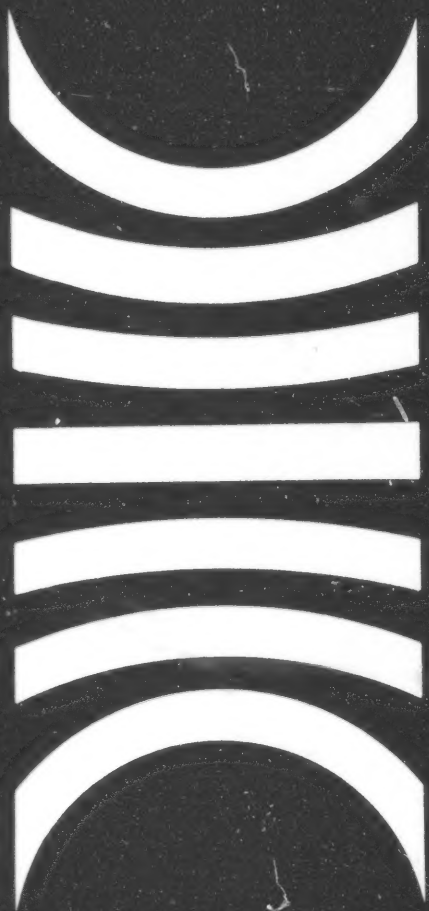
Job Satisfaction: Is There A Trend?

MANPOWER RESEARCH MONOGRAPH NO. 30

U.S. DEPARTMENT OF LABOR



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Job Satisfaction: Is There A Trend?

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PREFACE

This report was prepared under Grant 92-26-72-35 from the Manpower Administration of the U.S. Department of Labor. Investigators undertaking such projects under Government sponsorship are encouraged to express their own judgments. Interpretations or viewpoints stated in this document do not necessarily represent the official position or policy of the Department of Labor.

Much of the hitherto unpublished data presented in this report was collected in two national surveys of workers sponsored by the Employment Standards Administration, U.S. Department of Labor.

The authors are particularly indebted to Dr. Florence Casey, of the Manpower Administration's Office of Research and Development, for helping to prepare this report. The advice and criticism of Dr. Casey, Dr. Howard Rosen, Director of that office, and their colleagues were not only invaluable but made the preparation of the manuscript a personally rewarding experience for the authors.

Robert P. Quinn
Graham L. Staines
Margaret R. McCullough

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INTRODUCTION

Not so many years ago, concern with the work-related attitudes of Americans was confined almost exclusively to management publications, courses in industrial psychology, and a few scholarly books and journals. In the past year or two, however, these attitudes have become a major topic of public discussion, as well as a growing concern of management and, to a lesser extent, government and organized labor. Part of this increasing concern stems from the belief—perhaps more widely publicized than well-documented statistically—that the "mood" of the American work force is changing and that well-tried solutions are no longer adequate for many newly emerging problems confronting workers and their employers.

Although current discussions of workers' attitudes focus on job dissatisfaction and are peppered with such terms as "the blue-collar blues" and "the dehumanization of work," far greater interest has centered over the years on the less voguish concept of job satisfaction. Research concerned explicitly with job satisfaction dates back as far as Hoppock's 1935 community survey of working adults.[1] That it continues at a steady rate is evident in the results of a recent literature search conducted by the American Psychological Association which revealed that 556 reports concerning job satisfaction were published between 1967 and 1972. According to Edwin Locke, 3,350 articles, books, and dissertations have been published on the topic to date.[2]

This report reviews some of the major research on job satisfaction that has been conducted in the past 40 years. It will provide the reader with some of the informational tools necessary for understanding current or future discussions of job satisfaction and related questions.

The information is presented in five major sections that deal with the following topics: National trends in job satisfaction; demographic and occupational distributions of job satisfaction; motivational assumptions about what Americans look for in their jobs; the implications of job satisfaction or dissatisfaction for workers, employers, and society at large; and experiments to improve working conditions. Each section is introduced by a series of questions dealt with in the body of that section.

Some of the more significant observations in the report are summarized below:

1. In spite of public speculation to the contrary, there is no conclusive evidence of a widespread, dramatic decline in job satisfaction. Reanalysis of 15 national surveys conducted since 1958 indicates that there has not been any significant decrease in overall levels of job satisfaction over the last decade.

2. Job satisfaction among blacks and other minority groups has been consistently lower than that of whites, but has fluctuated as much as 13 percent in the past 11 years. These changes do not correspond to any consistent pattern and are most probably due to sampling error.

3. Younger workers are less satisfied with their jobs than older workers, but this has been true for the past 15 years. Therefore, the much-discussed large recent decline in job satisfaction of younger workers has not been substantiated.

4. Among occupational categories, professional-technical workers, managers, officials, and pro-

[1] Robert Hoppock, *Job Satisfaction* (New York: Harper, 1935).

[2] This estimate, plus the report of the American Psychological Association's literature search, may be found in Edwin Locke's "The Nature and Consequences of Job Satisfaction," which will appear in Marvin Dunnette's *Handbook of Organizational Psychology* (New York: Rand McNally, in press).

prietors register the highest levels of job satisfaction, while operatives and nonfarm laborers register the lowest. Nondomestic service workers and clerical workers are also among the relatively dissatisfied, a factor of potential importance since these workers represent a growing sector of the labor force.

5. Women workers, by and large, are about as contented with their jobs as are men. But it appears that women workers with one or more children under 6 years of age in their households are significantly less satisfied than are either women without preschoolers in the household or male workers in general.

6. Among workers without a college degree, there is little relationship between educational level and job satisfaction. Those with college degrees, however, have high levels of job satisfaction. Surprisingly low levels of satisfaction are registered by workers with some college education but no degree.

7. When asked to identify the individual facets of the job which were of greatest importance to them, most workers in a national sample gave high ratings to the availability of the resources needed to perform well and to the challenge of their jobs and lower ratings to financial rewards and "comfort" factors. Blue-collar workers, however, tended to consider pay more significant than the challenge of the job, while women workers were somewhat more interested in "comfort" than were men.

Because the "average" American worker appears to seek many things simultaneously (e.g., good pay, interesting work) from each job, there may be no *one* way to increase job satisfaction.

8. A long list of job-related stresses have been implicated in various types of physical and mental illnesses, indicating that expressions of job dissatisfaction may be viewed as an important early warning system to both employees and employers.

9. There is no convincing evidence of the existence of a direct cause-effect relationship between job satisfaction and productivity. In reality, the contribution of job satisfaction to productivity is probably indirect and more likely to be reflected in reductions on the "cost" side of the corporate ledger than in increases on the output side. These indirect benefits are associated with reductions in turnover, absenteeism, alcohol and drug abuse, sabotage and theft—all of which have been linked to some degree with job dissatisfaction.

10. Most recent experiments concerning such currently disputed matters as the impact on workers' attitudes of changing work schedules and job redesign have been conducted and evaluated too unscientifically to permit any reliable estimation of their success.

The apparent absence of any marked national trend may indicate to some that job dissatisfaction is not a problem for American workers. Most of the findings listed above, however, point to the existence of one or more job-related problems affecting satisfaction levels. And the problems, many of which defied solution for decades, can be linked to identifiable occupational, demographic, and income groups. Action to improve the satisfaction level of American workers has lagged, partially because attention has been focused on measurement of a presumed "national trend." This report attempts to direct attention to research which, instead of indicating a "national trend," points to a multiplicity of trends, problems, and possibilities. The report offers the reader a picture of what is known and what is *not* known about job satisfaction.

NATIONAL TRENDS IN JOB SATISFACTION, 1958-73

Has the average level of overall job satisfaction changed in the last 15 years?

Have there been any trends in job satisfaction among major segments of the work force?

Have levels of job satisfaction kept pace in recent years with presumed improvements in jobs?

The job satisfaction of the American work force has never been measured as systematically or as continually as have wages, hours, employment, or unemployment. It is, in fact, only as part of recent efforts to develop "social indicators" or to monitor the "quality of life" that any repeated measurement of job satisfaction has even been considered. Virtually all of the thousands of earlier measurements of job satisfaction have been circumscribed by their application to very unique populations of workers or by the tendency of most investigators to develop their own job satisfaction measures. The number of measures that have been used repeatedly and that have even modestly respectable credentials is small.

It is nevertheless possible to obtain some idea about national trends in overall job satisfaction by comparing the results of seven national surveys of workers conducted since 1958 by three organizations: The National Opinion Research Center and the Survey Research Centers of the Universities of Michigan and California. All surveys asked essentially the same single job satisfaction question, "All in all, how satisfied are you with your job?" The seven surveys and the specific phrasing and coding of the question used are described in appendix A. Appendix B discusses some limitations of such single-question measures.

The survey data can be supplemented to a limited extent by satisfaction data obtained from eight national Gallup polls. Gallup's question, "On the whole, would you say that you are satisfied or dissatisfied with the work you do?" was asked once in 1963, once in 1965, twice in 1966, once in 1969, twice in 1971, and once in 1973.[1] The Gallup surveys have one advantage over the others in that the wording of the question did not vary from year to year. The major limitation of the Gallup data, however, is that the satisfaction question was asked of all people sampled, not only those who worked for pay, but the unemployed, housewives, retired people, and students as well—in other words, all people willing to comment on any "work" they did. Some adjustment is therefore required in the Gallup data if they are to be used to document any longitudinal trends in *job* satisfaction or to be compared with data obtained from the research center surveys. Because the Gallup surveys did not identify subjects according to pay status, the data could not be reanalyzed to yield descriptive statistics on those who work for pay.[2] To get data on this group, the Gallup survey results were reanalyzed using a restricted sample—males, aged 21 through 65—a large portion of whom work for pay.[3]

The percentages of workers in the seven research center surveys reporting that they were satisfied with

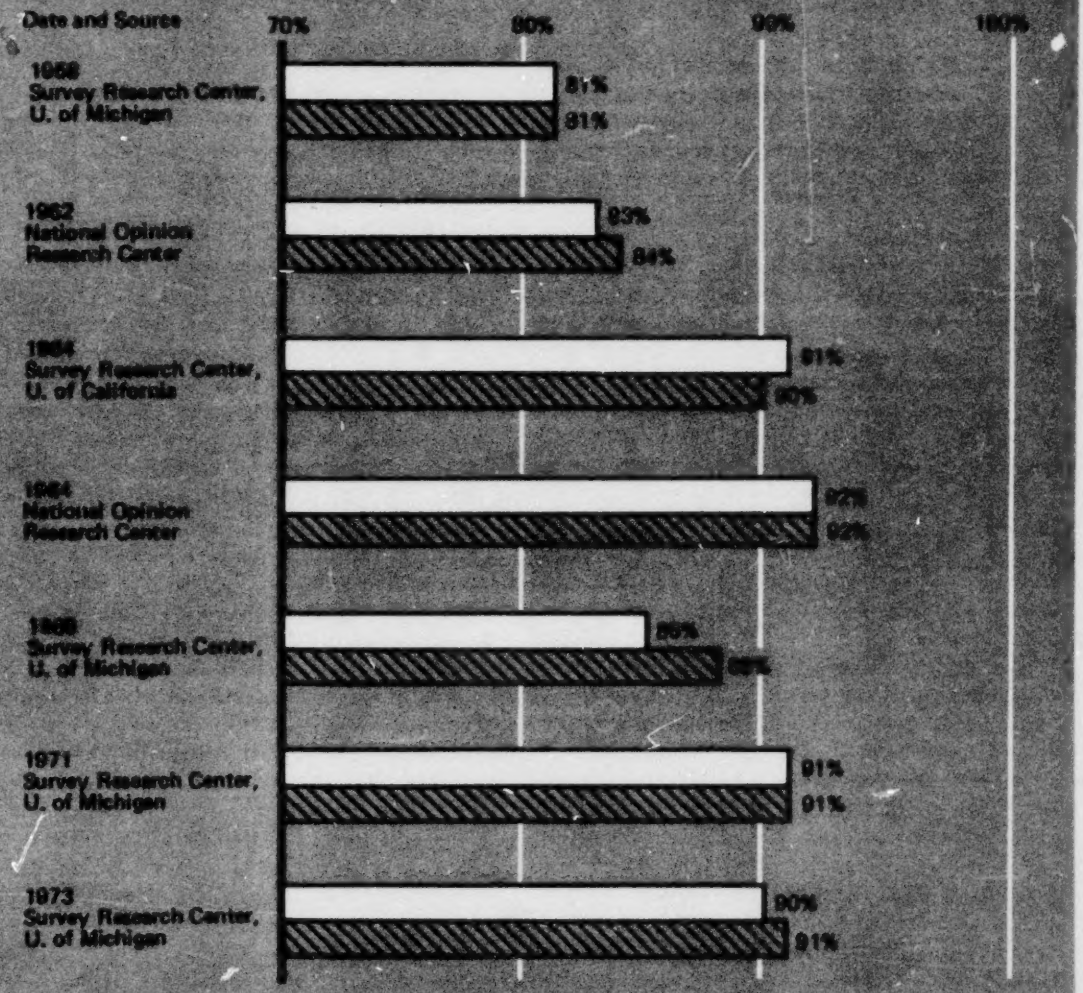
[1] Not reported here are 1948 Gallup data based on a different satisfaction question. Moreover, 1948 is too far removed from the nearest year in which relevant data are available (1958) to define any trend.

[2] Gallup's 1973 survey is a possible exception.

[3] According to the *1973 Manpower Report of the President*, Statistical Appendix, pp. 129, 131, (Washington: U.S. Government Printing Office, 1973) the civilian labor force participation among males of these ages was about 91 percent in 1972.

Figure 1

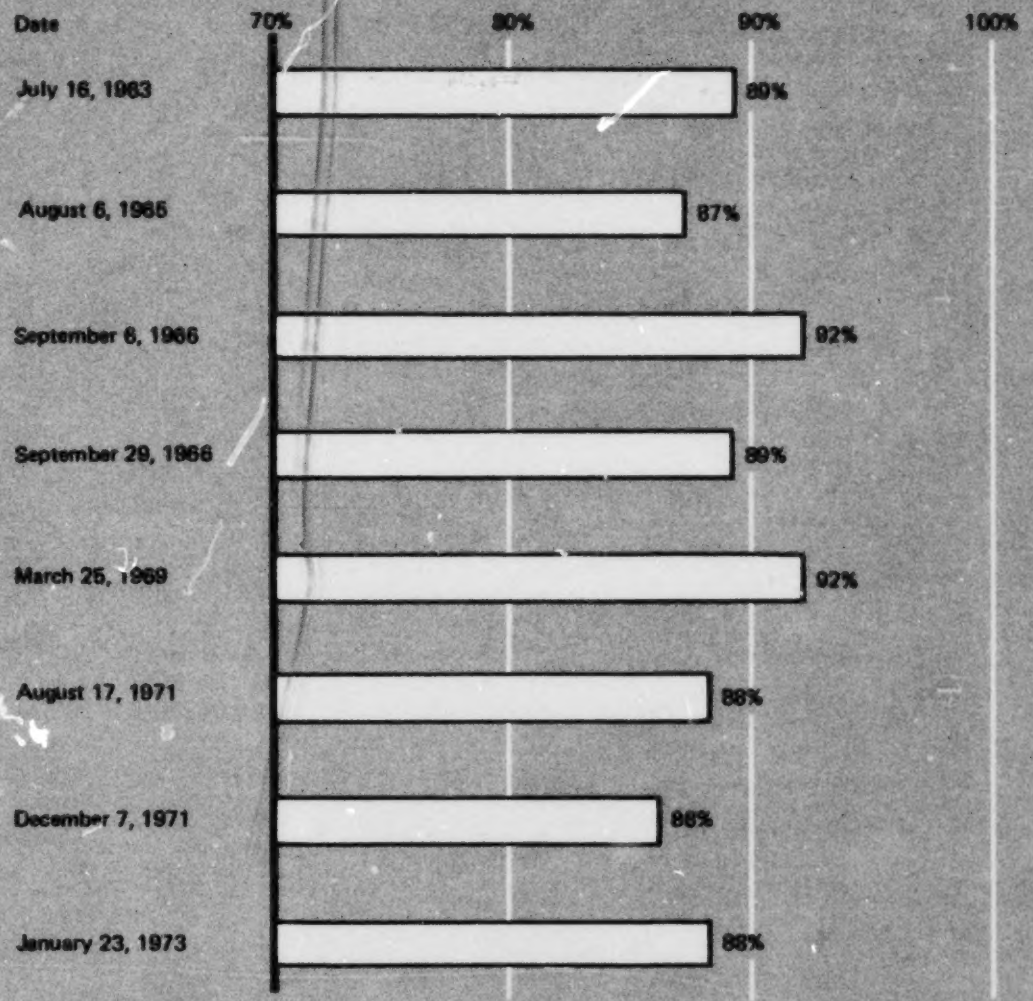
Percentage of "Satisfied" Workers, 1958-1973, Based on Seven National Surveys



Note: This figure is based on the non-Gallup surveys described in appendix A. "Don't know" answers were excluded from the percentage base.

Figure 2

Percentage of "Satisfied" Workers, 1963-1973, Based on Eight Gallup Polls (men only, ages 21 through 65)



Note: This figure is based on the eight Gallup polls described in appendix A. The dates correspond to those printed on Gallup's questionnaires and are reportedly field dates of the polls. "Don't know" answers were excluded from the percentage bases.

their jobs are shown in the unshaded bars of figure 1. Spanning a 15-year period from 1958 to the present,[4] the surveys show that job satisfaction for the working population as a whole increased between 1962 and 1964 and has remained high over the last 9 years.[5]

The shaded bars of figure 1, based on the same surveys, are restricted to men, 21 through 65 years old, and show the same trend that appears in the full samples—an increase in job satisfaction between 1962 and 1964, followed by no change. Figure 2 shows the percentages of satisfied workers in the eight Gallup surveys conducted since 1963. Like those depicted in the shaded bars in figure 1, the percentages are restricted to men, ages 21 through 65, and are computed with "don't know" answers excluded from their bases. When confined in this way to a more appropriate sample containing a large percentage of wage earners, the Gallup data confirm the conclusions offered by the other surveys: **There has been no substantial change in overall levels of job satisfaction over the last decade.** Even the 4-percent decline between 1969 and 1973 evident in the Gallup data is almost equalled by a 3-percent change over a 3-week period in 1966.

On the other hand, a trend is detectable in the Gallup data when "don't know" is treated as a "legitimate" answer and included in each percentage base.[6] Thus computed (and restricting the Gallup data to men ages 21 through 65), there was a decline in the level of overall job satisfaction of 7 percent between 1969 and 1973.[7] Lest this trend be accepted too readily, however, it should be remembered that, even in the case of the restricted sample, about 10 percent of those polled were nonworking men (including, for example, some full-time college students, early retirees, the unemployed, and those who for one reason or another were out of the labor force). Moreover, the trend observable in the Gallup data does not result exclusively from a changing number of workers saying they were "satisfied" or "dissatisfied." Part of it results from an increasing proportion of people responding "don't know."[8] And it is impossible to tell whether this latter increase comes principally from those who were employed or from those who were not employed.

Offsetting Trends?

The lack of any consistent change in overall job satisfaction during the last decade may mask a number of offsetting trends. It may be, for example, that members of one segment of the work force (e.g., women) have become less satisfied, but that this trend has been offset by an increase in job satisfaction among another segment (e.g., men). Appendix D, based on seven national surveys, shows trends in job satisfaction for workers distinguished by race, education, age, and sex.

Since the bulk of the work force is white, the time trends in job satisfaction for whites parallel those of the work force as a whole—an increase between 1962 and 1964, and no change thereafter. The job satisfaction of blacks and other minority groups fluctuated as much as 13 percent during the same period (from a low of 76 in 1962 to a high of 89 in 1971), but the changes correspond to no consistent pattern and are within the limits of sampling error.

Although educational categories may no longer carry the same meaning in 1973 as they did in 1958, it is nevertheless possible to examine longitudinal changes in job satisfaction of workers with different levels of educational achievement. Largely because of small subsample sizes, insufficient information is available for workers with no education. For two other educational categories—workers with some college training but no degree and those who have graduated from college—changes in job satisfaction since 1962 show no readily interpretable pattern and are within the range of sampling error. For those with a grade school, high school, or postgraduate education, job satisfaction in-

[4] For estimated sampling errors, see appendix C.

[5] Except for a dip in 1969 that remains to be explained.

[6] This is the way the Gallup data are generally reported.

[7] The percentage of "satisfied" workers each year, given this base of computation on this restricted Gallup sample of men aged 21 through 65, is as follows:

1963—88 percent (N = 1,484)
1965—84 percent (N = 1,385)
1966 (two polls)—90 percent and 86 percent (respectively, N's = 1,404, 1,386)
1969—89 percent (N = 609)
1971 (two polls)—86 percent and 85 percent (respectively N's = 530, 565)
1973—82 percent (N = 566)

[8] With "don't know" answers included in Gallup's percentage bases, the difference between 1969 and 1973 was 7 percent (89 percent satisfied in 1969 minus 82 percent satisfied in 1973). With "don't know" answers excluded, the difference was 4 percent (92 percent in 1969 minus 88 percent in 1973). Both of these differences are statistically significant when their standard errors are estimated on the (incorrect) assumption of simple random sampling. Neither verifies the often-quoted 10-percent decline in Gallup's 1969-1973 "job" satisfaction data. The 10-percent estimate probably results from the failure to understand that Gallup's satisfaction data, as usually reported, includes almost as many people who do not "work" for pay as those who do

creased between 1962 and 1964 and has not changed since.

Although not all the studies reported in appendix D employed the same age categories, some comparisons among changes in job satisfaction within particular age groups are still possible. Between 1962 and 1964 there was an increase in job satisfaction among workers of all ages, an increase that was particularly pronounced among workers under 30. After 1964 there was no evidence of any consistent or statistically significant change in job satisfaction for any of the age categories. **The much-talked-about decline in the job satisfaction of younger workers over the last decade is therefore not substantiated by the seven national surveys reviewed.**[9] Younger workers today are indeed less satisfied with their jobs than older workers, but an identical situation existed a decade ago. (See also table 4.)

Because recent political crosscurrents have focused upon many of the inequities and unusual problems that women face at work, one might suspect that they would register decreasing job satisfaction over the last few years. Instead, the longitudinal trend in job satisfaction among women is similar to that among men.

There is no evidence, therefore, that the lack of change in overall job satisfaction for the population at large during the last decade is the product of offsetting changes in job satisfaction among different demographically defined segments of the work force. It is, of course, possible that such offsetting trends might have been observed had changes in job satisfaction been examined among workers who were in various occupational categories, who worked under particular conditions, or who shared particular combinations of demographic and occupational characteristics. Unfortunately, the seven surveys reviewed do not permit this examination. In addition, their reliance upon single-question measures of overall job satisfaction rules out examining still another type of offsetting trend. It may be, for example, that *satisfaction with some aspects of jobs* has increased over the last decade while satisfaction with other aspects has declined, yielding no net change in overall satisfaction. While this is a plausible scenario, its verification requires access to time-series data that span the last decade and are based upon measures of satisfaction with particular aspects of jobs (e.g., pay, hours, supervision, etc.). Collection of such data has begun only within the last few years.[10]

Trends in Job Improvement

The increase in job satisfaction, terminating in 1964, is possibly attributable to a steady increase in the positive features of the "average" job. Moreover, there has been a consistent movement into occupations associated with high job satisfaction and a general decline in employment in some of the least liked occupations.

Some indirect evidence of improvements in jobs may also be noted:

–Real wages and fringe benefits have been increasing for many years.

–There is more Federal and State legislation protecting workers against abuses and attempting to assure them safe and decent working conditions.

–Some jobs have become increasingly automated and computerized. Evidence suggests that job satisfaction increases as automation provides workers with machines over which they have control. However, when partial automation introduces machines that control the worker rather than the reverse, workers view themselves as human extensions of their machines and their job satisfaction may drop accordingly.[11]

–Management has become more "employee centered" and involved with those behavioral sciences that pertain to work. Ever increasing numbers of managers are receiving sensitivity training or are engaged in organizational development programs featuring some attention to employees' needs. Some of the major firms in the country have instituted programs intended to "humanize" the work of their employees.

[9] Even if the trends among younger workers reported in appendix D had been statistically significant, they would still not indicate a *consistent* decline in job satisfaction among the young during the last decade.

[10] Two examples are the 1969-70 Survey of Working Conditions and the 1972-73 Quality of Employment Survey. Melvin Kohn of the U.S. Department of Health, Education, and Welfare is currently conducting a 10-year followup of the National Opinion Research Center's 1964 survey sample. These surveys are described in appendix A.

[11] Robert Blauner, *Alienation and Freedom: The Factory Worker and His Job* (Chicago: University of Chicago Press, 1964).

Strikingly, however, such improvements no longer appear to be having an impact on national job satisfaction trends. It may be, of course, that estimates of aggregate job satisfaction cannot rise much above 90 percent satisfied measured by the single questions cited in appendix A. Another possibility is that such factors as worker expectations are counteracting the effects of improvements in the quality of employment. In any event, aggregate levels of job satisfaction no longer continue to rise in the fashion that a more objective study of work environments might lead one to expect.

DISTRIBUTION OF JOB SATISFACTION IN THE WORK FORCE

Which major segments of the work force are most or least satisfied with their jobs? What implication does the current demographic and occupational distribution of job satisfaction have for future levels of job satisfaction?

A picture of the demographic and occupational distributions of job satisfaction in the work force is provided by the seven national surveys of workers referred to in the preceding section. For purposes of this discussion, the focal point is the most recent such survey available—the 1972-73 Quality of Employment Survey, data for which were collected from a national probability sample of workers early in 1973.[1] The extent to which the results of this survey are consistent with previous research can be evaluated by comparing them with those of six other earlier national surveys.[2] All six surveys had roughly comparable single-question measures of job satisfaction (appendix A).[3] Pre-1973 survey comparisons are, therefore, available from 1958 (men only), 1962, 1964 (two surveys, one of which was based on men only), 1969, and 1971. Another source of comparison is the longitudinal study of the labor force undertaken by Herbert Parnes and his colleagues. While based on national probability samples, Parnes' data were obtained not from samples of the working population as a whole but from samples of four subpopulations defined by age and sex and were based on a single job satisfaction question.

Occupation

Among occupational categories, professional-technical workers and managers, officials, and proprietors register the highest levels of job satisfaction (table 1).[4] Workers in these occupations are also more satisfied than others with the financial aspects of the work and the amount of challenge their jobs offer. Those workers registering the least satisfaction are operatives and nonfarm laborers.

A generally similar occupational distribution of job satisfaction was observed in Parnes' 1966 national survey of men 45 through 59 years old.[5] When the occupations listed in table 1 were ranked in decreasing order of the overall satisfaction of workers in each and a comparable ranking was made of occupations in Parnes' 1966 data,[6] the correlation between the two ranks was .90. According to the report of the 1966 data:

[1] The survey was conducted by the Survey Research Center of the University of Michigan under contract with the Employment Standards Administration, U.S. Department of Labor.

[2] These surveys are described in appendix A.

[3] The 1969 and 1973 surveys also shared a considerably more reliable 28-question measure.

[4] Relevant statistical information pertaining to table 1 is presented in appendix E. This appendix also shows the distribution of job satisfaction according to some demographic and occupational categories not discussed in the text. The appendix further shows the distribution not only in overall job satisfaction, but satisfaction with regard to two general aspects of the job: Financial rewards and challenge.

[5] Herbert Parnes, Belton Fleisher, Robert C. Miljus, and Ruth Spitz, *The Pre-Retirement Years: A Longitudinal Study of the Labor Market Experience of Men* (Washington: U.S. Government Printing Office, 1970), vol. 1, p. 209.

[6] The latter rankings were based on the percentages of "satisfied" workers as indicated by a single-question measure.

TABLE 1. MEAN JOB SATISFACTION BY MAJOR OCCUPATIONAL GROUP

Occupational group[1]	Mean job satisfaction[2]
Professional and technical (N = 323)	25
Managers, officials, and proprietors (N = 319)	19
Sales (N = 112)	11
Craftsmen and foremen (N = 270)	8
Service workers, except private household (N = 238)	−11
Clerical (N = 364)	−14
Operatives (N = 379)	−35
Nonfarm laborers (N = 72)	−42

[1] The following categories have been omitted due to small numbers of cases: Farmers and farm managers, farm laborers, and private household workers.

[2] Mean values in tables 1-5 are based on a 28-question measure of overall job satisfaction. A higher numeric score indicates greater job satisfaction. The mean of this measure in 1973 was −2; its standard deviation was 84. See appendix E for further relevant statistical information.

SOURCE: 1972-73 Quality of Employment Survey.

Among white men, the professional, managerial, and sales occupational categories have the largest proportions of highly satisifed workers—over two-thirds in each case. Clerical workers, craftsmen, service workers, and farmers fall into a middle category, with between 51 and 56 percent of their members expressing high satisfaction. Operatives and both farm and nonfarm laborers are the only categories with under 50 percent reporting high satisfaction (about 46 percent). Among black men, the pattern is roughly similar, except that farmers and farm managers have the smallest proportion of highly satisfied workers—43 percent and 30 percent, respectively.

The 1966 data indicated, moreover, that an observed 7-percent difference in satisfaction between white and black men was largely accounted for by differences in the occupational distribution of the two groups and especially by the lower job satisfaction among black than among white farmers and farm laborers.

Parnes' data based on women 30 to 44 years of age indicated that the white women most satisfied with their jobs were those in professional, managerial, clerical, sales, and nondomestic service occupations.[7] Domestic service workers, farmworkers, and blue-collar workers were somewhat less satisfied.[8]

There is one hopeful note for the future in these observed occupational distributions of job satisfaction. Workers in some of the less satisfying occupations, such as domestic service, constitute a decreasing proportion of the labor force. On the other hand, the proportion of *nondomestic* service workers is increasing. While this may augur future increases in job satisfaction among women, especially black women, it augurs less well for men, for whom service occupations are among the less satisfying ones.

Sex

Considering the large wage gap between men and women and the overrepresentation of women in lower status occupations, it is surprising that sex differences in overall job satisfaction have not been consistently observed. Moreover, even the few differences that have been observed are small.

A 1957 review of previous research failed to uncover a clear indication of any consistent sex difference in job satisfaction.[9] This review was, however, based upon samples of workers that were not representative of the total work force. Since that time, five national surveys have been conducted that are capable of contrasting the job satisfaction of men and women.[10] The differences between the percentages of men and women "satisfied" with their jobs, based on a single-question job satisfaction measure were:

1962–3 percent difference, with men more satisfied

1964–3 percent difference, with women more satisfied

1969–7 percent difference, with men more satisfied

1971–2 percent difference, with women more satisfied

[7] Herbert Parnes, John Shea, Ruth Spitz, and Frederick Zeller, *Dual Careers: A Longitudinal Study of the Labor Market Experience of Women* (Washington: U.S. Government Printing Office, 1970), vol. 1, p. 161.

[8] "Among black women the ordering of occupations was 'roughly similar' except that the rank orders were reversed between those in clerical or sales jobs and those in nondomestic service and between farm and domestic service workers." *Dual Careers*, vol. 1, p. 181.

[9] Frederick Herzberg, Bernard Mausner, Richard Peterson, and Dora Capwell, *Job Attitudes: Review of Research and Opinion* (Pittsburgh: Psychological Services of Pittsburgh, 1957).

[10] For details of these surveys and the percentages reported relevant to sex differences, see appendixes A and D.

1973—2 percent difference, with men more satisfied[11]

Where sex differences in job satisfaction have occurred they were slight, and only intermittently were they statistically significant. The differences changed from year to year and from survey to survey according to no obvious pattern that can be explained historically (e.g., in terms of women becoming progressively more dissatisfied with their jobs) or in terms of methodological differences among the surveys reviewed.

An appreciable sex difference in job satisfaction is evident, however, when the presence of preschool children in the worker's household is considered. According to table 2, women with one or more children under 6 years old in the household are significantly less satisfied with their jobs than are women without such children. They are also less satisfied than male workers in general, regardless of whether or not there are preschoolers in a man's household. There are two possible explanations of this which remain to be investigated. First, women with preschoolers living with them may have poorer paying and otherwise less desirable jobs than those without preschoolers. Second, the dual roles of worker and child-rearer may create problems relating to time, schedules, physical stamina, and payment for child care which are serious enough to decrease the attractiveness of jobs that women without children might otherwise find satisfying.

TABLE 2. MEAN JOB SATISFACTION BY SEX AND PRESENCE OR ABSENCE OF PRESCHOOL-AGE CHILDREN IN HOUSEHOLD

Subsample	Mean job satisfaction[1]
Men with no children under 6 years old in household (N=949)	3
Men with one or more children under 6 years old in household (N=386)	−8
Women with no children under 6 years old in household (N=641)	−2
Women with one or more children under 6 years old in household (N=177)	−18

[1] A higher numeric score indicates greater job satisfaction. The mean of this measure was .2; its standard deviation was 84.
SOURCE: The 1972-73 Quality of Employment Survey.

Education

The distribution of job satisfaction by educational level is more interesting for what it does *not* show than for what it does. It does not show that for each increment in education there is a corresponding payoff in terms of increased job satisfaction. The expectation that this would be so is based on the assumption that the higher one's educational level, the greater are one's chances of securing a desired and hence presumably satisfying job. Several studies in the last few years have provided indications (some of them highly contested) that this assumption is either oversimplified or wrong.

Table 3 shows that the association between educational level and job satisfaction is distinctly nonlinear—that is, each increment in education is not necessarily matched by a corresponding increase in job satisfaction. Among workers with less than a college degree there is no linear relationship between educational level and job satisfaction. A sizable and statistically significant increase in job satisfaction occurs, however, among workers with college degrees. Six other national surveys (see tables in appendix D) not only concur in their failure to identify a linear relationship between educational level and job satisfaction but suggest a pair of more tantalizing ideas: (1) Job satisfaction is likely to be lowest among workers with "intermediate" levels of education; (2) this "intermediate" level may have shifted upward over the last decade or so—from having a high school education to having "some college" education but no degree.

Age

Age and job satisfaction are, according to table 4, very closely associated. Moreover, the 1972-73 Quality of Employment Survey (appendix E) found that, among eight demographic and occupational characteristics examined, age was about equal to major occupational

[11] The 1969 and 1973 surveys are, respectively, the 1969-70 Survey of Working Conditions and the 1972-73 Quality of Employment Survey. Although the data reported here are based upon a single-question measure of job satisfaction, the two survey's common 28-question measure provided equally inconsistent results: In the 1969 survey women were significantly less satisfied than men; in 1973 there was no significant difference between men and women in overall job satisfaction. See appendix E.

TABLE 3. MEAN JOB SATISFACTION BY HIGHEST LEVEL OF EDUCATION COMPLETED

Education	Mean job satisfaction[1]
8 years or less (N=242)	−2
Some high school (N=305)	−10
High school diploma (N=826)	−7
Some college (N=449)	−8
College degree or more (N=327)	24

[1] A higher numeric score indicates greater job satisfaction. The mean of this measure in 1973 was −2; its standard deviation was 84. See appendix E for further relevant statistical information.

SOURCE: 1972-73 Quality of Employment Survey.

group in terms of the strength of its association with job satisfaction. Younger workers are significantly more dissatisfied than older ones not only with their jobs in general but with the financial rewards and challenges their jobs provide. Moreover, the biggest gap among the age groups involves those aged 16 through 29, who are appreciably less satisfied than older people.

TABLE 4. MEAN JOB SATISFACTION BY AGE

Age	Job satisfaction[1]
16-20 (N=175)	−41
21-29 (N=584)	−27
30-44 (N=657)	10
45-54 (N=443)	9
55 or older (N=292)	23

[1] A higher numeric score indicates greater job satisfaction. The mean of this measure was −2; its standard deviation was 84. See appendix E for further relevant statistical information.

SOURCE: 1972-73 Quality of Employment Survey.

Several national surveys confirm this association between age and job satisfaction (appendix D). In all of them the workers most satisfied with their jobs were 50 or older. Those least satisfied were workers under 30. The most consistently replicated age difference in these surveys was between workers who were 30 years old or more and those who were younger than 30.

Much interest is currently centered on young workers, enlivening the current debate about changing life styles, characteristics of the "now" generation of workers, the "decline of the Protestant ethic," etc. Social trends over the last few years are often considered best embodied in the attitudes of youth, which are regarded not only as epitomizing such past changes but as anticipating changes to come. Although it is tempting to infer from the differing levels of job satisfaction among younger and older workers the existence of a "generation gap," a growing alienation of young workers, or support for the assertion that "the kids today aren't what they used to be," no inference about changes over time can be made from such data. While the relative dissatisfaction of younger workers is consistent with a number of hypothetical scenarios about what has been happening to workers' needs and attitudes, it in no way confirms any such scenario. **Younger workers have been consistently less satisfied than their elders for the last 15 years and, probably, even earlier than that.**

The tenuous nature of generalizations about "generation gaps" or related longitudinal trends seems all the more apparent when a far simpler explanation is considered—that older workers, especially in the case of men, are more satisfied with their jobs than younger workers simply because they have better jobs. In an achievement-oriented society, the "best" jobs are reserved for those who can perform them best. Generally such performance depends on a worker's job experience, accrued skills, and demonstrated competence in related jobs. While this may not be true in all cases, certainly a job candidate's previous background and experience weigh heavily in the deliberations of those who will promote him or her to a "better" job. Younger workers lack sufficient background to qualify them for the best jobs around. In addition, the fact that our society, like most others, places a high value on seniority increases the probability that better jobs will go to workers over 30. "Beginners" in every sense of the word, younger workers are confined in consequence to positions that are often less than wholly satisfying.

Some Projections

What does the distribution of job satisfaction among major segments of the American labor force suggest for future levels of job satisfaction among American workers?

Projected changes in the occupational composition of the work force over the next decade indicate that fewer workers in the future will be in "less satisfying" occupations. Also, according to estimates in the *1973 Manpower Report of the President*, a growing proportion of the labor force will consist of women workers, while increasing numbers of young workers of both sexes will be seeking their first jobs between now and 1985. Meanwhile, the average level of education among those employed or seeking work will continue to rise.

Can these young, well-educated workers anticipate finding jobs that will make the best use of their skills, securing some degree of job satisfaction as a result? The data in table 5 suggest that at present many such workers are not thus employed and that a sizable percentage have more education than they feel that their jobs require. The most conspicuously underemployed group by this standard is a growing one in the work force—workers with some college education but without a college degree. Their situation is a difficult one. On the one hand, their college experience may have altered their occupational desires in the same way that it often does for college graduates. They lack, however, the necessary credential—a college degree—for securing employment suitable for a college-trained person. Among workers under 30 this situation is characterized by strikingly low job satisfaction—roughly equal to that expressed by laborers and operatives.

TABLE 5. UNDEREMPLOYMENT AND JOB SATISFACTION, BY AGE AND EDUCATIONAL LEVEL
(Whites only)

Subsample	Percentage of workers who report they have more education than their jobs require	Mean job satisfaction[1]
WORKERS 21-29 YEARS OLD		
High school education or less (N=174)	35.6	- 5
Some college (N=60)	65.0	-43
College degree or more (N=43)	34.9	-11
WORKERS 30 YEARS OLD OR OLDER		
High school education or less (N=689)	27.3	9
Some college (N=150)	49.3	2
College degree or more (N=144)	29.1	31

[1] This measure of overall job satisfaction is the same as that used in tables 1 through 4, related footnotes, and appendixes. The data in this table were based on the 1969-70 Survey of Working Conditions. In 1969, the national mean of this measure was 0 and its standard deviation was 87. The N's reported are unweighted.

WHAT AMERICAN WORKERS WANT FROM THEIR JOBS

What aspects of their jobs are most important to American workers?

How realistic are the stereotypes of "the economic man" and "the self-actualizing man"?

How do major segments of the work force differ in terms of the importance they assign to particular aspects of work?

Programs and policies intended to improve the conditions under which people work, effect better job-worker matches, or alter the behavior of workers are necessarily based on assumptions about what American workers want from their jobs. In spite of the commanding importance of establishing a solid data base for such assumptions, popular stereotypes or commonsense notions of human behavior often prevail in their formulation.

There are better ways, however, of inferring which facets of their jobs (e.g., pay, supervision, hours, interesting work, etc.) are most important to workers. The most persuasive involves the prior specification of some desired outcome (e.g., increased job satisfaction, reduced absenteeism, etc.). A job facet that may inhibit achievement of this goal is then altered experimentally, and its importance is measured by the amount of change that is effected in the outcome. A variation of this experimental approach involves identifying the association between a desired outcome and quality of employment with regard to a job facet. For example, quality of supervision may be identified as "important" to the extent that it is associated with productivity or job satisfaction.

Since such approaches as these have generally confined themselves to the investigation of one job facet at a time, they have contributed little to the understanding of the relative importance of different job aspects. Most available information concerning the relative importance of job facets comes from studies wherein workers were asked to rate or rank job facets in terms of how important they are in an "ideal" or desired job. Importance ratings or rankings have several limitations, among them being their susceptibility to social desirability and subtle variations in question phrasing.[1] Moreover, they tend in most investigations to be positively correlated with *satisfaction* ratings of the same facets. Sixteen studies of importance ratings of job facets conducted prior to 1957 were reviewed by Frederick Herzberg and his colleagues.[2] Four years later, Edward Lawler reviewed 49 studies, including some already covered in Herzberg's review, in order to determine the importance ratings of pay relative to other job facets. The results of the two research reviews were inconsistent with regard to the rank assigned to pay. According to Lawler, the 49 studies:

> . . . give pay a much higher rank than the sixth place assigned to it by Herzberg et al. In fact, its average rank is closer to third than the sixth, and 27 percent of the studies found that pay ranks first in importance among job facets. The data also show that there is indeed substantial variance in the importance of pay, since it varies in rank from ninth to first. Thus, the results of this literature review lead to conclusions that are the reverse of those reached by Herzberg et al.[3]

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[1] For additional criticisms of the rating or ranking procedures, see Edward Lawler III, "What Do Employees *Really* Want?" presented at the 1973 annual convention of the American Psychological Association, Montreal, Canada.

[2] Herzberg, et al., op. cit.

[3] Edward Lawler III, *Pay and Organizational Effectiveness: A Psychological View* (New York: McGraw-Hill, 1971), p. 39.

TABLE 6. PERCENTAGE OF WORKERS RATING JOB FACETS AS "VERY IMPORTANT" TO THEM

Job facet	All workers (N=1500)[1]	White-collar workers (N=730)[1]	Blue-collar workers[2] (N=685)[1]
RESOURCES			
I receive enough help and equipment to get the job done	68.4	64.5	71.9
I have enough information to get the job done	68.1	67.4	68.5
My responsibilities are clearly defined	61.2	57.6	64.5
My supervisor is competent in doing his job	61.1	59.7	63.0
FINANCIAL REWARDS			
The pay is good	64.2	57.4	72.5
The job security is good	62.5	54.2	71.5
My fringe benefits are good	50.6	39.7	62.4
CHALLENGE			
The work is interesting	73.0	78.5	68.2
I have enough authority to do my job	65.6	66.8	63.5
I have an opportunity to develop my special abilities	63.3	69.4	57.2
I can see the results of my work	61.7	60.0	63.8
I am given a chance to do the things I do best	54.3	54.0	55.0
I am given a lot of freedom to decide how I do my work	52.9	56.4	49.8
The problems I am asked to solve are hard enough	30.4	31.2	29.3
RELATIONS WITH COWORKERS			
My coworkers are friendly and helpful	63.4	60.9	67.0
I am given a lot of chances to make friends	44.0	39.3	48.6
COMFORT			
I have enough time to get the job done	54.4	47.7	60.3
The hours are good	50.8	41.0	61.6
Travel to and from work is convenient	46.2	42.4	49.7
Physical surroundings are pleasant	40.2	32.3	47.8
I am free from conflicting demands that other people make of me	33.1	25.8	40.0
I can forget about my personal problems	30.8	26.5	35.3
I am not asked to do excessive amounts of work	23.0	15.7	29.5

[1] Base N's vary slightly from row to row due to nonresponse to individual questions.

[2] Farmworkers have been excluded.

SOURCE: 1969-70 Survey of Working Conditions.

Some of the inconsistencies among studies reviewed by Lawler may be attributed to sampling differences, since most of the studies cited were based on data provided by workers in particular firms or particular occupations. In the 1969-70 Survey of Working Conditions,[4] however, importance ratings of 23 job facets were obtained from a national probability sample of American workers. The percentages of all workers sampled who rated each facet as "very important" are shown in the first column of table 6.

There is considerable disagreement among studies (the 1969-70 Survey of Working Conditions included) concerning the importance assigned to *specific* job facets. Agreement is greater, however, with regard to the general message contained in the data. This message becomes clear when specific facets are grouped into larger job areas and when the different ratings provided by white-collar and blue-collar workers are examined separately.

Preferences of a National Sample

Table 6 assigns each job facet to one of five general areas: Having adequate **resources** to do one's work, **financial rewards, challenge, relations with coworkers,** and **comfort.**[5]

Although none of the five general aspects of the job embodied in the five areas was conspicuously more important to the total sample than the others, all four job facets concerning resources appeared among the most highly rated facets, and two of them, "I receive enough help and equipment to get the job done" and "I have enough information to get the job done," were respectively the second and third most important facets. Adequate resources are vital for adequate job performance and, therefore, may be viewed not as ends in themselves, but as instrumental to the procurement of many economic and noneconomic occupational rewards. Adequate job performance is, at least in principle, one determinant of income. Moreover, the intrinsic satisfaction a worker obtains from his or her job is likely to be quite limited if the work is not done well. Since resource adequacy may be essential to workers with a variety of motivational orientations toward their jobs, it emerges as an aspect of the job that is of considerable importance to most workers.

The ratings in the first column of table 6 indicate that most of the job facets included in challenge were more important to the total sample than those involving comfort. In fact, comfort was the least important of all five general aspects of the job.

If most workers were primarily concerned with receiving good pay for the expenditure of as little energy as possible, the observed ratings of the comfort facets would have been higher, since comfort generally reflected a desire for a rather "soft," undemanding, and trouble-free job. Good pay was indeed of considerable importance to workers, but at the same time they desired jobs that were interesting and personally rewarding. **Workers, in other words, were highly concerned both with the economic and noneconomic aspects of their jobs. Their noneconomic concerns, however, were less with avoiding interesting, challenging employment than with securing it.**

The only motivational assumptions with which these conclusions are basically inconsistent are extreme ones: Those in the pure "economic man" tradition that regard the worker as a hedonistic creature interested in obtaining the greatest economic rewards with the least investment of effort; and those that, in their single-minded emphasis upon the worker as a self-actualizing being, occasionally lose sight of the fact that people do at times work in order to eat. Most contemporary approaches to the motivation of workers, even when tending to one of these two extremes, grant that the worker is neither motivated exclusively by economics nor likely to eschew dollars in favor of noneconomic rewards. Such a "mixed" motivational picture of American workers is demonstrated by the ranking of job facets in table 6.

White- and Blue-Collar Preferences

In order to assess how generally applicable these conclusions are, it is useful to have some idea of the extent to which major segments of the working population differ in terms of what is important to them in their

[4] Robert Quinn, Stanley Seashore, Robert Kahn, Thomas Mangione, Douglas Campbell, Graham Staines, and Margaret McCullough, *Survey of Working Conditions*, Document 2916-0001 (Washington: U.S. Government Printing Office, 1971).

[5] This assignment was based upon a factor analysis of importance ratings. The factor analysis and data pertinent to its replicability are available in Robert Quinn and William Cobb, Jr.'s *What Workers Want: Factor Analyses of Importance Ratings of Job Facets* (Ann Arbor, Mich.: Survey Research Center, 1971).

jobs. The second and third columns of table 6 show importance ratings of job facets for white-collar and blue-collar workers. The most conspicuous difference between the two groups is in the general aspect of the job rated as most important. For white-collar workers it was challenge; for blue-collar workers it was financial rewards. Resource adequacy was second in importance for both groups, and comfort was last. In terms of absolute percentages, blue-collar workers assigned higher ratings than did white-collar ones to all general aspects of the job save challenge.

Additional light is shed on white/blue-collar differences by the consistently strong and well replicated correlations of education with importance ratings. Generally, better educated workers are more concerned than others with having jobs that are challenging and interesting. They are also less concerned than others with relations with coworkers, pay, hours, physical working conditions, fringe benefits, and job security. Most of the collar-color differences decrease considerably when educational level is held constant. The question of whether it is educational level or collar color that makes the critical difference remains to be answered.

Preferences of Women Workers

The only sex-related difference repeatedly found in the importance workers assign to various job facets is the tendency of women to express more concern than do men with the socioemotional aspects of work. There is also good evidence obtained from studies in both the United States and the Soviet Union[6] that women may be more concerned than men with the comfort aspects of their jobs (e.g., pleasant and hygienic physical surroundings, convenient hours, and good transportation to and from work). Each of these two sex-related differences is consistent with what is known about the early socialization of boys and girls, but the all-too-frequent inference drawn from these contrasts in work-related attitudes (which are quite small to begin with) is that women are less concerned than men with obtaining interesting, self-developing work and in being promoted. This inference is based on a specious, yet common kind of "hydraulic" reasoning. It is often assumed that if women (or men, for that matter) value one job facet highly, they must do so at the expense of another aspect of employment. Thus, if women are shown to be concerned with socioemotional relationships at work, it is assumed that they cannot be as concerned as men with intellectual matters. This logic makes as little sense for women as it does for men.[7] Moreover, it ignores the rather simple counterinterpretation that women may express more interest in the socioemotional aspects of work because their jobs require them to deal more frequently with other people.

The importance ratings shown in table 6 are therefore unrealistic in that the "average worker" to which they pertain is a statistical composite pieced together from many workers with different demographic and occupational characteristics. These different characteristics are in turn associated with differences in importance ratings. It is easy, however, to exaggerate these differences. Because blue-collar workers assign greater importance to financial rewards and less importance to challenge than do white-collar ones does not mean that blue-collar workers are exclusively motivated by pay or white-collar workers by interesting work. The inference that workers are incapable of motivational complexities or of being attracted to work for more than a single reason is not only patronizing in its assumption but is contradicted by available data.

[6] A. Zdravomyslov, V. Rozhin, and V. Iadov, *Man and His Work* (White Plains, N. Y.: International Arts and Sciences Press, 1967), p. 259.

[7] Additional data and discussion of this point are presented by Joan Crowley, Teresa Levitin, and Robert Quinn, "Seven Deadly Half-Truths about the American Working Woman," *Psychology Today*, March 1973, p. 94. The data showed that, in a national sample of workers, there was no sex-related difference in preferences for "challenging" work where such work was defined as that which was interesting and provided a worker with opportunities to develop and use special abilities. Men and women were found to be equally dissatisfied with intellectually undemanding jobs.

THE IMPORTANCE OF JOB SATISFACTION

What is the relationship between job satisfaction and workers' mental health, physical health, and their off-the-job activities?

How is job satisfaction related to matters of interest to employers—productivity, turnover, absenteeism, and counter-productive behavior?

What stake does society-at-large have in the job satisfaction of the work force?

Is dissatisfaction with the job in general or with specific job facets important enough to justify the investment of the time, money, and effort required to reduce it—either for the working population at large (which is generally satisfied) or for those who constitute the least satisfied segments of the work force? "Importance" is necessarily defined in relation to a particular perspective or set of values, and its assessment must respond to the questions, "Important to achieve what ends?" or "Important to whom?" There are at least three different perspectives from which the importance of job satisfaction and job dissatisfaction may be evaluated—that of employees, their employers, and society in general.

From an Employee's Perspective

Physical Health

Growing interest in psychosomatic medicine has opened up a new field of research in occupational health which has focused attention on psychological factors that may contribute to such conditions as coronary heart disease, migraine, gastric ulcer, rheumatoid arthritis, ulcerative colitis, certain skin diseases, and even the common cold. Much more research is required to determine why some workers succumb while others do not. But to the extent that a disease has any psychological basis at all, it is likely to be a response to one or more of the many social conditions that stimulate psychological reactions, including the single activity in which the majority of adults spend most of their waking hours—work.

Although there are many psychological concepts linking work to disease, among them lowered self-esteem and repressed anger, the one receiving the greatest current attention is social stress. It is unnecessary to detail here the long list of social stresses, job-related or not, that have been implicated in various types of diseases. One example among many is the risk of coronary heart disease associated with eight kinds of job stress: Not knowing what is expected on the job; conflicting demands from people with whom one works; having too much work to do in the time available; having work that requires more skills than one has; having poor relations with one's supervisor, subordinates, or other coworkers; being unable to participate in decisions that affect one's work; being required to deal frequently with people in other departments or who work for other employers; and being responsible for other people at work.[1]

One of the more interesting studies relating work-associated stress to coronary heart disease was done at

[1] John French, Jr., "Statement of Dr. John French," *Worker Alienation, 1972: Hearings Before the Subcommittee on Employment, Manpower, and Poverty* (Washington: 92nd Cong. 2d sess., U.S. Senate Committee on Labor and Public Welfare, June 25, 1972), Committee Print, pp. 36-41.

the Goddard Space Flight Center. The study showed that management jobs carried higher risks of coronary heart disease than did the jobs of engineers or scientists. Whatever their assignment, the administrators at Goddard, as a group, had higher pulse rates and blood pressures, and smoked more, than the engineers and scientists. Medical records revealed that administrators had suffered almost three times as many heart attacks as either the scientists or the engineers, and "the rise in serum cholesterol, blood sugar, and blood pressure among ground managers was much greater during manned space flights than during flights of unmanned space satellites."[2]

Mental Health

There is an increasing body of evidence that work may affect an employee's mental health.

One early example of this evidence was offered by a mid-1950's study of automotive workers.[3] Within each skill level and among both younger and older workers, those who expressed below-average job satisfaction were also judged to have poorer mental health. Thus, 86 percent of the young, semiskilled workers who were below average in job satisfaction had relatively "poor" mental health, as compared with 48 percent of those above average in job satisfaction.

This should not be taken to mean that job dissatisfaction in any way "causes" poor mental health; the contention is simply that job dissatisfaction and poor mental health may share a number of common work-related sources. Some of these are summarized in a 1972 review prepared for the Department of Health, Education, and Welfare:[4]

> 1. Working conditions: Exposure to health and safety hazards and unpleasant working conditions; the necessity to work fast and to expend a great deal of physical effort; excessive or inconvenient hours.
>
> 2. The work itself: Lack of use of skills and abilities; perception of one's job as uninteresting; repetitious work, especially on a constantly moving assembly line; discrepancies between resources (time, training and skill, machinery, etc.) and job demands.
>
> 3. Shift work: Fixed afternoon and rotating shifts, which affect time-oriented body functions and lead to difficulty in the performance of activities not associated with work, if these activities are normally performed during the time of day when the worker is on the shift.
>
> 4. Supervision: Job demands that are unclear or conflicting; close supervision and no autonomy; lack of feedback from one's supervisor.
>
> 5. Wages and promotions: Inadequate income; promotional practices that are unfair or promotional opportunities that are nonexistent.

Social Participation

There are three major competing arguments concerning the effects of job satisfaction on a worker's other life roles or satisfaction with life in general.

> —According to the **spillover argument**: Workers' feelings about their jobs will generalize to other life roles, with a dissatisfied worker for the most part becoming a dissatisfied citizen (or possibly, vice versa). This spillover argument would seem at first to have some support in the often-documented positive association, usually somewhat higher for men than for women, between job satisfaction and life satisfaction. Caution should be exercised, however, in interpreting this association. Since work represents a major part of a full-time worker's life, the two estimates of satisfaction would naturally be expected to correlate substantially even if no spillover occurred. It is like correlating satisfaction with a whole object and satisfaction with one of its major parts. Caution also should be exercised in regarding the job as the causal factor in explaining associations between dissatisfaction with a job and dissatisfaction in other roles (mother, consumer, etc.). Spillover of dissatisfaction with these other roles to the job is an equally plausible alternative interpretation.
>
> A related argument is that dissatisfaction with work and nonwork experiences reflect a general disenchantment with life or a diffuse social malaise. Such disenchantment or malaise must, however, start somewhere. Since work and nonwork experiences, taken together, cover the totality of daily existence, this view is really a

[2] Walter McQuade, "What Stress Can Do to You," *Fortune*, January 1972, p. 134.

[3] Arthur Kornhauser, *Mental Health of the Industrial Worker* (New York: Wiley, 1965). Results of the study were published considerably after collection of the data.

[4] Stanislav Kasl, "Work and Mental Health," *Work in America* (New Haven, Conn.: Yale University Press, 1973) pp. 11-12.

variation on the spillover argument. Fundamentally it suggests that disenchantments may set in on a number of fronts simultaneously, that these disenchantments reinforce each other, and that the result is a general malaise no single source of which can be identified.

–According to the **compensatory argument**: Unable to achieve psychological gratification from their jobs, dissatisfied workers put their psychological investment in other roles and obtain compensatory gratification from activities associated with these roles. This argument would predict that there would be negative correlations between importance (and satisfaction) ratings of work and nonwork activities. A few such negative correlations have indeed been found–but in locations far from the American scene. In Kuwait, for example, workers dissatisfied with their jobs tended to be more active in leisure pursuits than those who were relatively satisfied.[5] Likewise, a study of workers in the French town of Annecy reported that workers who expressed satisfaction with work attached less importance to certain semileisure activities centered in the home.[6]

–According to the **segmentation argument**: All life is divided into several parts, each one representing a different area of activity and interest. Each segment is lived out more or less independently of the others. Work is separated from leisure, production from consumption, workplace from home–and the attitudes developed in one setting have no effect on attitudes in other settings.

The segmentation argument is a difficult one to support empirically, since it requires proving that something–a connection between work-related and nonwork-related attitudes and behaviors–does *not* exist. If a study fails to support either the spillover or compensatory argument, the segmentation argument cannot be the winner by default unless it can be conclusively demonstrated that the failure to identify either a positive or negative relationship between work and nonwork cannot be attributed to inadequate measurement or methodology.

Available evidence seems to favor the spillover argument but provides no hint as to whether attitudes toward work generalize to other areas of life or vice versa. According to one 1972 review of previous research dealing with these arguments, there is little empirical support for the compensatory view "... that lack of satisfaction in one area of life is compensated for by particularly strong enjoyment or satisfaction in another."[7] In addition, at least two studies provide evidence of spillover. The study of the mental health of automobile workers referred to earlier found that job satisfaction was positively correlated with satisfaction with family, home, leisure, and community.[8] Further support for the spillover argument is provided by the results of Martin Meissner's more recent study of 206 industrial workers in a Vancouver Island community. This study, one of the best done to date on the spillover and related arguments, suggested that attention should be directed away from overall job satisfaction and directed instead toward particular sources of dissatisfaction or deprivation at work, examining each "nonwork" activity in terms of how relevant it is to each source of dissatisfaction. Meissner's study concentrated on two job characteristics:

1. Technical constraints, such as being an appendage to a machine, that limit a worker's discretion over time, space, function, and coordination of work.

2. Opportunities to talk to or deal with other people at work. The results indicated that:

> ... experience with work of little discretionary potential carries over into reduced participation in formally organized activities. Similarly, the experience of social interaction opportunities on the job carries over into greater participation in voluntary associations ... in both cases [the results] correspond with the [spillover] hypothesis. ..[9]

Meissner's study is particularly instructive in suggesting that, rather than seeking solely to determine whether the spillover or compensatory argument is correct, emphasis should be placed instead on the more interesting questions of under what circumstances, with regard to what specific attitudes and behaviors, and in which segments of the labor force spillover, compensation, and segmentation are most common.

Even Meissner's study shares with most others in this area a tendency to psychologize matters too much. The

[5] K. Matthews and B. Abu-Luban, "Job Satisfaction and Leisure Time Activity," *Sociology and Social Research*, January 1959.

[6] J. Dumazedier and N. Latouche, "Work and Leisure in French Sociology," *Industrial Relations*, February 1962.

[7] Kasl, op. cit.

[8] Kornhauser, op. cit.

[9] Martin Meissner, "The Long Arm of the Job: A Study of Work and Leisure," *Industrial Relations*, 1971, p. 253.

research focus of these studies is usually the degree to which attitudes toward work influence attitudes toward other roles. What is commonly overlooked is that attitudes toward nonwork roles are often contingent upon the amount of money, time, energy, and other resources available to a worker in nonwork roles. Severe limitations on such resources are imposed when a worker: has an income that barely provides the basic necessities of life; works long hours each day; moonlights; spends two hours each day going to and from work; has a work schedule that isolates him or her from the normal activities of family and friends; or is so worn out, physically or psychologically, at the end of the work day that participation in nonwork activities is a burden.

Also commonly overlooked is the fact that many full-time workers leave "work," defined as paid employment, only to engage in the "nonwork" activity of being wife and mother—an activity that for many other women is a full-time "job." These "nonwork" activities are often defined and treated implicitly as "leisure time" activities—a definition which, while comfortable for male academics, may not be quite so agreeable to a working mother.

A Caveat

It should not be concluded from the preceding discussion that it is necessarily in the best interests of workers that 100 percent of them be satisfied with their jobs 100 percent of the time. Complete contentment may breed complacency, as well as an incapacity or unwillingness to adjust to changing job demands. It would be self-defeating, moreover, for workers to be satisfied with jobs that are harmful to them. Dissatisfaction can be a very adaptive reaction for workers in poor working environments. It provides a stimulus for them to attempt to remedy their situations through individual or collective action. Failing this, job dissatisfaction may stimulate them to seek better employment elsewhere. Some data of Herbert Parnes and his colleagues to be presented later in this report indicate a higher rate of interfirm movement among dissatisfied workers than among others. Most workers who change jobs get raises and, therefore, consider moving advantageous. Employers consider job changing less desirable since they have to pay to hire replacements.

From an Employer's Perspective

Should employers be concerned about the job satisfaction of their employees?

Any attempt to create better or more satisfying working conditions may require some renovation of a firm's policies, organization, personnel practices, and perhaps even its equipment. These changes obviously cost money. Where the changes are simple palliatives (e.g., removing time clocks, sending some supervisors to a T-group), the costs are comparatively small. But where the changes involve revamping of whole worker-machine systems (e.g., redesigning an assembly line), the cost may be great, and management can reasonably question whether the results justify the expense.

Satisfaction and Performance

For many years, the supposed existence of a cause-effect relationship between job satisfaction and job performance was the principal argument used by social scientists, management consultants, and others to convince employers to institute changes beneficial to their employees. Some early studies seemed to support the argument. A few experiments in job redesign (not always well controlled or evaluated) produced an apparent increase in both job satisfaction and productivity. From such parallel increases, the inference was drawn that increased job satisfaction was somehow "causing" the increased productivity.

However, a damper was put on efforts to show that job satisfaction "causes" good performance by two influential reviews of earlier research. One evaluated 26 pre-1957 studies that attempted to estimate the association between job satisfaction and performance; the review concluded that there was a small, frequent, but not consistent positive association between the two.[10] The apparent coup de grace to much of this research occurred in 1964 when a review of 20 previous studies indicated that the association between job satisfaction and performance is not very great.[11]

[10] Herzberg, et al., op. cit.

[11] Victor Vroom, *Work and Motivation* (New York: Wiley, 1964). The median correlation between job satisfaction and performance in the 20 studies evaluated was only .14. As influential as the reviews of Vroom and Herzberg, et al. was that of Arthur Brayfield and Walter Crockett, "Employee Attitudes and Employee Performance," *Psychological Bulletin*, 1955, pp. 396-424.

In light of this failure to pinpoint any association between job satisfaction and performance that is either consistent or large enough to be useful, a reevaluation of the relationship between job satisfaction and performance has been undertaken in the last decade. The notion that "all good things go together" in matters of work has virtually been scuttled, and thought and research have been based on quite different assumptions.

The first is that job satisfaction may lead to better performance *only under certain conditions.* The identification of these conditions has become a principal concern of many of those interested in productivity and performance on the job. For example, one condition that may obscure or diminish the association between job satisfaction and productivity is the degree to which the pace of work is controlled. As an externally imposed constraint associated with many jobs, particularly those on assembly lines, the work pace may hold a worker's production constant regardless of attitude, motivation, or emotional state. Two other conditions thought to influence the association between job satisfaction and performance are the level of skill required by the job and the presence or absence of work-group norms favorable to production. For the most part, those subgroups of workers—occupational, demographic, or other—among whom job satisfaction might "cause" increased performance remain to be identified.

The second new approach to the association between job satisfaction and productivity simply reverses the cause-effect relationship. According to many recent theories, good job performance leads to job satisfaction rather than vice versa. When occupational rewards are based on a worker's performance, it is argued, satisfaction is dependent on performance. If a worker wants higher pay, performs well in order to secure higher pay, and is paid better as a result, the worker is likely to be satisfied as a consequence, not as a cause, of these events and desires.[12]

A third argument advances no cause-effect relationship at all between job satisfaction and productivity. It asserts that any observed associations between satisfaction and productivity are explainable in terms of both having been produced by the same conditions—good supervision, for example.

In spite of its plausibility, another way in which job satisfaction may conceivably affect a company's productivity has seldom been discussed, although there is some anecdotal evidence to support it. Because of its direct manpower implications, however, it warrants consideration. Its logic is as follows: A company in which workers are very satisfied will acquire a reputation in its community of being a "good place to work." Among workers seeking jobs it will therefore be one of their first choices, rather than an employer of last resort.[13] Having more qualified applicants, it can recruit its employees from the ranks of whom it wants, rather than from those it is forced to take. High productivity may thereby be achieved as a result of the company's ability to hire qualified employees.

All this assumes, however, that efforts to increase workers' job satisfaction will be reflected in increased profits and productivity resulting from an upward trend on the output or productivity side of corporate ledgers. **In reality, the contribution of job satisfaction to productivity is probably less direct, and more likely to be reflected in reductions on the "cost" side of the ledger.**

What are the possible consequences of job dissatisfaction that might show up as corporate "costs"? They are of two kinds—escape and attack—each reflecting a different style of reaction to situations that are either personally unrewarding and/or threatening.

Escape Reactions

Although a decision to quit is not necessarily a reflection of dissatisfaction, the most obvious type of escape reaction is quitting one's job. There are no available statistics that indicate how much voluntary turnover costs American employers as a whole, and current cost-accounting procedures in most firms are seldom adequate to provide such estimates. But if a plant has to hire 4,800 workers a year in order to maintain a work force of 5,000 employees (as one automobile plant must do), it seems reasonable to assume that this turnover is costing industry rather dearly. One firm that investigated the cost of turnover

[12] While this example refers to pay, the approach is applicable to any type of reward (e.g., prestige, being liked by one's coworkers, etc.). For a further discussion of this approach, its variations, and some of its far-reaching practical implications, see Lyman Porter and Edward Lawler III, *Managerial Attitudes and Performance* (Homewood, Ill.: Irwin-Dorsey, 1968), or Donald Schwab and Larry Cummings, "Theories of Performance and Satisfaction: A Review," *Industrial Relations*, 1970, pp. 408-430.

[13] There is a hidden barb in placing too great an emphasis on a firm's reputation as a "good place to work." For example, a firm may be very attractive to some members of the local white community simply by having discriminatory hiring practices that exclude minority group members. While the quality of employment provided by such a firm may be satisfactory from the perspectives of both management and some white employees, a third perspective should also be invoked—that of society in general.

estimated that it required a thousand dollars to hire and train a new clerk. Based on the rate of turnover among this company's clerical employees, the estimated annual cost resulting from turnover in this one job category alone was $130,000.

Is job dissatisfaction related to turnover? Considerable evidence suggests that it may be.[14] A 1957 review of 24 previous studies reports that, in 21 of these research efforts, dissatisfied workers had a larger number of avoidable severances than did satisfied ones. A somewhat later (1964) review of seven studies bearing on the same question noted a significant association between job dissatisfaction and turnover in all of them. And a 1972 review of studies conducted since 1965 confirmed this conclusion.[15]

One of the few research efforts using job satisfaction to *forecast* turnover is the longitudinal study of Herbert Parnes and his colleagues. Spanning several years of data collection, the study is capable of tracing changes in job satisfaction as the sampled workers follow various career paths, experience unemployment, change employers, and move in and out of the labor force. Parnes' data also have the as yet unrealized potential of being able, through multivariate analysis techniques, to evaluate how well job satisfaction predicts turnover when compared to other predictors, including demographic and occupational ones. The major limitation of Parnes' data in this context is a reliance on a single-question measure of job satisfaction.

Generally Parnes' data have shown job satisfaction to be an effective predictor of subsequent turnover behavior or, in Parnes' more precise term, interfirm movement. Its effectiveness as a predictor is, however, not the same for all demographically or occupationally identified subsamples of workers. The following excerpts from reports of Parnes' data indicate some major conclusions as well as some of the complexities involved.

Among women 18 through 25 years of age employed in 1968 and 1969, with interfirm movement between 1968 and 1969 predicted from 1968 job satisfaction scores:

Interfirm movement between 1968 and 1969 was strongly related to 1968 expression of job satisfaction. . . . The data . . . support our expectations that the dissatisfied would be more likely than the satisfied to change jobs, and that there would be a noticeable difference in mobility between young women who had reported that they liked their jobs "very much" and those who had said they liked their jobs "fairly well." Among whites, the most satisfied were substantially less likely than were the dissatisfied to change jobs, and for both color groups those who had earlier reported that they liked their jobs "very much" were noticeably less likely than those who had said that they liked their jobs only "fairly well" to have made an interfirm move.[16]

Among men 21 through 25 years old employed in 1966 and 1967, with interfirm movement between 1966 and 1967 predicted from 1966 job satisfaction scores:

Those who express high satisfaction are less likely than those who are less satisfied to be seeking alternative positions (in 1966), to encounter alternatives which "measure up" to the current job, and therefore, to make voluntary moves. In addition, the highly satisfied are likely to have personal and employment characteristics (e.g., highly educated, white-collar job) which make them less prone than the less-satisfied to be involuntarily separated from a job. The figures . . . are particularly consistent with the hypothesized relationship which is particularly pronounced among whites in white-collar jobs.[17]

Among women 30 through 44 years old employed in 1967, 1968, and 1969, with interfirm movement between 1967 and 1969 predicted from 1967 job satisfaction scores:

Interfirm movement between 1967 and 1969 is strongly related to the degree of job satisfaction expressed by the respondents in 1967. . . . Within each tenure category, those with less favorable

[14] The association between job satisfaction and turnover will depend to some extent on the turnover measure used and other mitigating circumstances. For example, measures which fail to exclude such "unavoidable" turnover as that due to death, major illness, or being called up for military service will be less strongly related to job satisfaction than those which assess only "avoidable" turnover. Job dissatisfaction may be more likely to contribute to turnover when the worker is single or otherwise unencumbered with family responsibilities. Also, since voluntary turnover increases in periods of growing employment (that is, as larger numbers of alternative jobs become available), the association between dissatisfaction and turnover is likely to be stronger in periods of full employment.

[15] The three reviews cited are, respectively, those of Herzberg, et al., op. cit., Vroom, op. cit., and Thomas Mangione, *Turnover: A Model and a Review of the Literature* (Ann Arbor, Mich.: Survey Research Center, 1972). Although the studies reviewed are cumulatively persuasive in that virtually all of them indicated that job dissatisfaction was associated with high turnover, most suffer from one of three limitations: They are based on a small number of workers; if based on substantial numbers, they are likely to have occupationally heterogeneous samples and, therefore, fail to control factors other than job dissatisfaction that may lead to turnover; or, most importantly, they rely heavily on data obtained from exit interviews or retrospective interviews with former employees. Regardless of one's true feelings prior to leaving a job, the mere act of leaving commits one to a decision that requires some rationalization. In the case of turnover, this would amount to a terminated worker's after-the-fact denigration of the previous job.

[16] Roger Roderick and Joseph Davis, *Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women* (Columbus: The Ohio State University, 1973), pp. 29, 32.

[17] Herbert Parnes, Frederick Zeller, John Shea, Andrew Kohen, and Jack Meyer, *Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth* (Washington: U.S. Government Printing Office, 1971), vol. 2, p. 36.

attitudes were more likely to have changed jobs, although the differential tends to diminish with increasing length of service.[18]

Among men 45 through 59 years old employed in 1966 and 1969, with interfirm movement between 1966 and 1969 predicted from 1966 job satisfaction scores:

Men who expressed a high degree of satisfaction with the jobs in 1966 were less likely to have voluntarily changed employers between 1966 and 1969 than those who reported lesser degrees of satisfaction. . . . However, once substantial (i.e., five years or more) seniority is achieved, the absence of strong positive feelings toward the job is not sufficient to increase the probability of voluntary movement.[19]

Another study, in which turnover was reliably forecast by a measure of job satisfaction obtained 2 years earlier, is instructive in directing attention away from overall job satisfaction to satisfaction with particular job facets as predictors of turnover. Among men, the best predictor of turnover was dissatisfaction with pay; among women, the best predictor was dissatisfaction with the "comfort" apsects of their job—e.g., hours, transportation, physical surroundings, etc. (see table 6 for the job facets comprising "comfort"). Among those who had been in their jobs for 3 years or less prior to termination, dissatisfaction with pay made the greatest contribution to turnover; among workers with longer tenure, the greatest contributors were matters more closely associated with the content of the jobs—how interesting, challenging, and self-enriching the work was.[20]

Job dissatisfaction may also contribute to absences, a less extreme type of withdrawal.[21] According to Frederick Herzberg, et al., in 12 of 13 selected studies of absenteeism prior to 1957, job dissatisfaction and absenteeism were found to be related. A later review, while generally confirming this, found the evidence not quite so conclusive.[22] Data obtained from a British firm[23] suggest, moreover, that absenteeism may be less dependent on overall job satisfaction than upon the particular type of satisfaction obtained from the job. Employees in small plants (with less than 70 employees) were less often absent than those in large plants (with more than 3,000 employees) in spite of their being equal in overall job satisfaction. Employees in the smaller plants, however, obtained a greater satisfaction from the work itself and from interpersonal relationships on the job than did those in the larger plants.

Turnover, absenteeism, and related indices are far better cross-sectional indicators of job satisfaction of individuals than they are indicators of trends over time in job satisfaction. At any one time, when economic conditions are held constant, workers who are dissatisfied with their jobs will tend to leave their jobs more often than workers who are satisfied. Turnover cannot, however, always be expected to rise and fall consistently with trends in job satisfaction because turnover trends are so strongly influenced by economic factors. One study of manufacturing workers completed by the Bureau of Labor Statistics shows that year-by-year fluctuations in quit rates are largely explained by "cyclical variations in job opportunities, as measured by the rate of new hires."[24] Moreover, it is possible to account for more than 80 percent of the variation in rates of turnover by considering the business cycle alone. A similar criticism may be raised against absenteeism as a longitudinal indicator of job satisfaction. Again, economic factors are a very powerful, perhaps even prepotent, determinant of absenteeism. There is the additional problem that job satisfaction should be related only to "illegitimate" absenteeism, whereas most aggregate statistics fail to isolate particular types of absenteeism.

In any event, it is empirically clear that trends in job satisfaction over the last decade have not been reflected in changes in turnover or absenteeism in the same timespan. The job satisfaction "trend," or lack of same, certainly does not parallel trends in either turnover as reflected in manufacturing quit rates (increasing from 1964 to 1966, declining in 1967, increasing again until 1969, declining to 1971, and now increasing again)[25] or absenteeism (increasing until 1970—granting a change of

[18] Sookoon Kim, Roger Roderick, and John Shea, *Dual Careers: A Longitudinal Study of the Labor Market Experience of Women* (Washington: U.S. Government Printing Office, 1973), vol. 2, pp. 55-56.

[19] Herbert Parnes, Gilbert Nestel, and Paul Andrisani, *The Pre-Retirement Years: A Longitudinal Study of the Labor Market Experience of Men* (Washington: U.S. Government Printing Office, 1973), vol. 3, p. 37.

[20] Thomas Mangione, *Turnover—Some Psychological and Demographic Correlates* (Ann Arbor, Mich.: Survey Research Center, 1973).

[21] Like turnover, absenteeism will or will not be related to job dissatisfaction depending on the absenteeism measure employed. Among the absenteeism measures most sensitive to job dissatisfaction are: Total number of times a worker is absent, regardless of duration; total number of 1-day absences; measures which exclude "unavoidable" absences, such as long illness.

[22] Daniel Katz and Robert Kahn, *The Social Psychology of Organizations* (New York: Wiley, 1965).

[23] R. G. Ingham, *Size of Industrial Organization and Worker Behaviour* (Cambridge, England: Cambridge University Press, 1970).

[24] Cited by Harold Wool in "What's Wrong with Work in America?" *Monthly Labor Review*, March 1973, pp. 38-44.

[25] *1973 Manpower Report of the President*, p. 199.

measurement of absenteeism after 1966—and now decreasing).[26]

Despite some speculation that dissatisfied workers are more prone to have accidents at work, rigorous evidence on this point is scarce, and even its logic is not all that persuasive. According to Victor Vroom:

> the . . . interpretation that accidents are a means of withdrawal from the work situation cannot be completely accepted. This interpretation implies that dissatisfaction motivates persons to have accidents and is contrary to the more traditional view, implied in the term, that accidents are *unintended* consequences of acts. Since accidents are often highly painful and otherwise costly to those who have them, it is not easy to see why they should be adopted as a solution to an unpleasant work situation. Dissatisfied employees may be more likely to make trips to the dispensary for minor reasons but this does not mean that they are more motivated, either consciously or unconsciously, to have accidents.[27]

An alternative assumption is that it is the experience of having an accident that increases dissatisfaction with one's work, and not vice versa. A third argument runs as follows: Jobs that are physically demanding, rushed, and noisy are not only dissatisfying, but tiring as well. It is this fatigue and its attendant carelessness that create the climate in which accidents are likely. The observed relationship between satisfaction and accidents can be thus interpreted in terms of fatiguing job characteristics. Still another argument maintains that there is no causal association at all between job dissatisfaction and accidents but that both are consequences of unsafe or unhealthy physical working conditions.

Several other forms of withdrawal from unsatisfying jobs have also been suggested, but evidence that they are symptomatic of job dissatisfaction is almost exclusively anecdotal. Among them are lateness to work, punctuality in leaving (e.g., rushing for the exit and screeching out of the parking lot after one's shift ends), premature or early retirement, or a psychological withdrawal through drugs or alcohol.

A fragment of evidence concerning the association between job satisfaction and "drug" use is, however, provided by the 1972-73 Quality of Employment Survey. During this survey each worker interviewed was asked to indicate how often he or she had done certain things that would be frowned upon by his or her employer, among them how often he or she had "used drugs or chemicals (except vitamins or aspirin) to help you get through the work day."[28] The data indicated that job dissatisfaction was indeed associated with "drug" use as defined by the survey's question but that this association was confined to men who were 30 years old or older. There was no significant association between job satisfaction and "drug" use among men under 30 years of age or among women, regardless of their ages.

As Harold Wool has noted, the avoidance of work or work-seeking activity is the ultimate form of rejection of the work role. Yet, in spite of the often heard (and unsubstantiated) contention that more and more workers are becoming dissatisfied with and "turned off" from their jobs, there has been no evidence of a downward trend in the overall proportion of the population in the labor force.[29]

Other escape reactions are early retirement and decisions to make major career changes in late or middle age. Hopefully, Parnes' data obtained from men in their "pre-retirement" years (i.e., men 45 through 69 years old) will be able to determine the contribution of job satisfaction and working conditions to retirement and career change decisions.

Attack Reactions

Considerable publicity has been attendant upon those activities—industrial sabotage in particular—that might reflect an attack upon the employer rather than withdrawal from the employment situation. Information is scarce concerning either the prevalence of these activities or whether or not they are symptomatic of worker discontent. Owing to their dramatic character, however, such activities as sabotage and theft from employers continue to take the spotlight away from the less sensational and better documented symptoms of job

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[26] Janice Hedges, "Absence from Work—A Look at Some National Data," *Monthly Labor Review*, July 1973, pp. 24-30.

[27] Vroom, op. cit., pp. 180-81.

[28] These data were collected through a self-administered questionnaire given each of the survey's respondents during his or her interview. This questionnaire asked whether and how often during the last year the worker had engaged in several activities colloquially referred to as "industrial sabotage" or "drug use on the job." The questionnaire also asked each respondent to indicate his or her age, sex, and overall job satisfaction as measured by a single question. This questionnaire was mailed anonymously by the interviewer to the study staff. There was, as a result, no way to relate the information reported in the questionnaire to other information provided by the worker interviewed.

Note that the question was broad enough to include not only "drugs" but tranquilizers and other prescribed medicines (e.g., anti-depressants, thyroid medication, antacid stomach preparations, etc.).

[29] Wool, op. cit.

dissatisfaction that are represented by withdrawal reactions.

A number of studies, nevertheless, have begun to investigate the association between job satisfaction and workers' self reports of industrial "sabotage" or "theft," broadly defined. One such investigation is the 1972-73 Quality of Employment Survey. Information about "sabotage" and "theft" was collected on the survey's questionnaire described above in the context of "drug" use. The survey's measure of industrial theft and/or sabotage was based upon workers' anonymous reports of the number of times in the last year they had: Spread rumors or gossip to cause trouble at work; done work badly or incorrectly on purpose; stolen merchandise or equipment from their employer; damaged their employer's property, equipment, or product accidentally, but not reported it; or damaged their employer's property, equipment, or product on purpose. The data indicated that the reports of these activities were most common among dissatisfied workers, young workers, and men. The association between job dissatisfaction and these attack reactions was not, however, observed among all workers interviewed. This association was statistically significant only among men who were 30 years old or older.

From Society's Perspective

The designation of yet a third perspective, a societal one, is not meant to imply that those things valued by employees or employers are irrelevant to community or society. Many of the possible effects of quality of employment have direct social implications in their impact upon physical and mental health, leisure time use, labor turnover, and corporate profits. There remain, however, some further implications of job satisfaction that cannot be neatly compartmentalized as either the principal concern of employees or employers.

Dissatisfied workers may, for example, draw disproportionately on national resources. Workers whose jobs undermine their physical or mental health (and perhaps even that of their families) place an additional demand on the Nation's already overburdened system of health-care delivery. A worker whose expression of dissatisfaction takes the form of reactions that result in termination sometimes becomes a candidate for subsequent collection of unemployment compensation, an obvious drain on local resources.

Just as dissatisfied workers make demands on society, they contribute less to it than they want to or are capable of doing, since workers whose skills and education are underutilized constitute an obvious social waste. Two estimates of just how much the available skills of employed workers are underutilized are found in the 1969-70 Survey of Working Conditions. The 1,533 workers in the sample were first asked, "What level of formal education do you feel is needed by a person in your job?" This estimate was compared with the education of the worker who had provided the estimate. **Comparison indicated that 36 percent of American workers had more education than they thought they needed to do their jobs.** When asked, "Through your previous experience and training, do you have some skills that you would like to be using in your work but can't use on your present job?" 27 percent said "yes."

The issues surrounding productivity, costs, and their relationship to job satisfaction were considered previously from the employer's perspective alone. It should be remembered, however, that when workers express dissatisfaction in ways that either decrease the productivity or raise the costs of their employing establishments, a very likely result of this is that employers will raise the prices of their goods or services. Given enough such price rises, the impact soon begins to be felt by the consumer in the form of inflation and the diminished quality of goods and services.

It remains to be seen whether workers in their roles of consumers and citizens will be willing to pay the price that may conceivably be asked of them for improvements in their working conditions. Efforts to clean up the physical environment have their costs; so too do improvements in the working environment. With regard to both issues too little is known about the public's sense of tradeoffs and priorities to formulate long-range policy that will be widely acceptable.

If the implications of job satisfaction for society's long-range interests have tended to be overlooked, so too have been the social benefits arising from job *dissatisfaction.* Many major social changes are at times instituted belatedly simply because their change is triggered only by some dramatic event or catastrophe. Chronic problems are in some cases ignored. As an article in the *Monthly Labor Review* commented:

> Social legislation often has been inspired by failures of the system. The depression of the 1930's produced the Social Security Act. Some widely publicized scandals of the 1950's resulted in legislation governing the finances of labor unions. The deaths of 78 workers in a Farmington, W. Va., mining tragedy in

November 1968 helped bring about the Coal Mine Health and Safety Act.

Some failures, however, are fragmented in time and space and are, therefore, not as easily recognized. . . .

Responsible government must assure that headline-making failures of the system are not the sole prerequisites of action. There are other, more accurate ways of assessing the magnitude of problems than by their suitability for news coverage. As economic indicators are used to formulate fiscal and monetary policy, so should working conditions indicators be developed to help shape laws and programs to meet workers' needs.[30]

The thoughtful consideration of job satisfaction and its antecedents is also important when it calls into question basic social assumptions or processes. Many of the conditions that affect job satisfaction do not begin and end with the job, but have much more extensive social significance and impact. For example, job dissatisfaction may be determined in part by on-the-job discrimination or a worker's confinement to the secondary labor market. Attempts to improve working conditions by reducing on-the-job discrimination at least requires those involved to rethink the problem in terms of the broader social context in which discrimination occurs. While alteration of hiring and promotional practices may provide some leverage, a full consideration of the problem forces one to adopt a broader perspective that would take into account, for example, the availability and quality of education and training, residential problems, and the organization of sex and family roles.

[30] Neal Herrick and Robert Quinn, "The Working Conditions Survey as a Source of Social Indicators," *Monthly Labor Review*, April 1971, p. 15.

NEW APPROACHES, STRATEGIES, AND FINDINGS

What is being or can be done to improve the conditions under which Americans work?

What factors should be taken into account when job improvement programs are initiated?

How successful have recent job improvement programs been, and how well have they been evaluated?

The remainder of this report illustrates some of the approaches, especially the more innovative ones, used in relatively recent efforts to solve problems involving job satisfaction. No attempt is made to present a complete "shopping list" of available approaches. Instead, the intention is to emphasize that the choice and application of any approach requires answers to a series of questions necessary to a rational solution of the problem. These are: What goals are to be achieved? What goals are to be ignored? What causal assumptions are being made? Which change strategies are most appropriate? How are the effects of change to be evaluated?

Goals to be Achieved

It is always easier to apply a readymade solution to a problem than to define the problem precisely and tailor-make a solution. Managers are heard to say, for example, "We're trying out here what they did at AT&T" or "We're applying the same principles that are being used at Polaroid."

But sometimes the local problem is smaller than the scope of the imported program. For example, even if job satisfaction were demonstrably related to such job-withdrawal reactions as turnover and absenteeism or to physical and mental health, problems in these areas can at times be solved without intentionally setting out to increase job satisfaction. If the goal is one of reducing absenteeism and lateness, such solutions as changing hours of work or work schedules to make them more compatible with workers' life styles, or changing times of arrival at work to avoid traffic jams may suffice. Only when simple, direct solutions to well-identified problems have been tried without success is there any demonstrable need for the expense entailed in large-scale programs designed to reduce absenteeism and lateness by increasing job satisfaction.

The exact specification of goals may help program designers to understand their otherwise unstated perspectives, priorities, and value assumptions. Once these are understood, a justifiable claim can be made on the resources of those who are being asked to support the program. Following a clarification of goals, the interested parties can be identified more clearly and their support can be justified more rationally. For example, if increased productivity and profits are specified as goals, a program instituted to attain these ends clearly embodies an employer's perspective and not that of employees or society as a whole. Under such circumstances, management would be hard pressed to justify the program to labor and enlist its support. Where productivity or profit is still the goal, but where workers are under a profit-sharing program, a better case can be made to labor. Where the goal is one of reducing turnover among the hard-core unemployed, a mixed set of perspectives is involved—those of the employees affected by the program, their employers, and even society at large. Under such conditions management can

legitimately make some claim to the resources of community action groups and government.

Goals to be Ignored

Given limited resources, the explicit commitment to a particular program designed to improve working conditions requires that some aspects of the problem be assigned a low priority. Determining what is to be left undone is a source of worry to numerous critics of job redesign programs. While many of these critics have no objections to the principles of job redesign, they fear that job redesign programs may either divert resources from other efforts or have undesirable side effects.

One concern over imbalanced priorities is expressed by Judith Agassi,[1] who feels that concentration on job redesign will divert attention away from what she regards as issues important to working women: Upgrading the skills of women in the mainstream of technological and scientific development; improving child-care services for working parents; and challenging the uninterrupted, year-round, all-week, full-time work pattern as the only legitimate one. The implications of job redesign programs both for workers and society at large are at best slight in comparison to what might result were greater attention paid to the alternative priorities advocated by Agassi.

A second concern, expressed by Harold Wool,[2] among others, is that an overemphasis on job redesign may divert attention from the more important problem of securing full employment. Full employment, according to Wool, is the most effective solution to the problems of American workers. A full employment situation creates a seller's market for available labor. As a result, employers are compelled to compete for the scarce labor available and in doing so to provide more attractive jobs. What the full employment argument leaves unstated is precisely *how* jobs are to be made more attractive. Higher wages is obviously one answer. Better hours and working conditions are still other answers. But there is no reason to stop there.

More interesting and self-developing work is also a possible answer. Advocating full employment does not, therefore, necessarily make job redesign irrelevant. Rather, it treats job redesign as just one of a large number of strategies that employers may adopt to attract and retain qualified personnel.

Another major concern over priorities comes from organized labor, which has been somewhat cool toward recent job redesign experiments.[3] Part of this coolness probably stems from labor's observation that the majority of the more widely publicized job redesign programs have been initiated by management, often with the aid of consultants or academics, in nonunion establishments. But labor's reservations are not due to chagrin at having not been in the forefront in advocating job redesign. Nor are they due exclusively to labor's suspicions, on the basis of past experience with management-instigated change, that job redesign may be a new, covert means of speedup. In reality, many job redesign programs involve priorities that can be questioned legitimately by organized labor.

How, for example, does job redesign affect levels of employment? An appendix to *Work in America* reviews many recent experiments in job redesign, most of them "successful" from an employer's perspective. But some disquieting notes appear in the results:

> The plant is operated by 70 workers, rather than the 100 originally intended by industrial engineers.
>
> Since the experiment there has been a 20 percent reduction in labor. . . .
>
> . . . half of the old supervisors [were] not needed.
>
> Personnel requirements dropped from 120 to 71.[4]

While they reduced labor costs, and were, therefore, successful from an employer's perspective, these four experiments would have been equally successful from the perspective of employees or society at large only if the workers displaced by the changes had been subsequently reemployed. Can the labor market be counted upon to reabsorb workers who may be displaced by large-scale job redesign programs? If not, is large-scale job redesign justifiable during episodes of slackened demand for labor?

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[1] Judith Agassi, "Women and Work" (paper prepared for the International Conference on the Quality of Working Life, Arden House, Harriman, N.Y., Sept. 24-29, 1973. The paper will appear in the conference's proceedings.)

[2] Wool, op. cit.

[3] Because the labor movement is so diverse, there is no single spokesman for "labor's position" with regard to job redesign. Two contrasting statements are, however, presented by: Thomas Brooks, "Job Satisfaction—An Elusive Goal," *AFL-CIO American Federationist*, October 1972, p. 5, et seq.; William Winpisinger, "Job Enrichment: A Union View," *Monthly Labor Review*, April 1973, pp. 54-56.

[4] *Work in America*, Report prepared by Special Task Force for the Secretary of Health, Education, and Welfare, December 1973, pp. 189, 193, 197.

Organized labor can also object to the complications that job redesign creates for bases of compensation. Most labor contracts established through collective bargaining either include or rest upon prior agreements about wage scales keyed to job descriptions. It is overly convenient to think of job redesign as a "noneconomic" issue the implications of which, from an employee's point of view, are mainly psychological. Where the design of a job affects the formal description of that job and pay rates are calculated accordingly, job design is a disguised bread-and-butter issue of critical concern to organized labor.

Management-oriented advocates of job redesign appear to have given too little thought to the implications of how their programs may affect employment levels and labor-management contracts. On the other hand, many such contracts may sanctify the existence of jobs that experiments in job redesign show to be unnecessary or destructive in one way or another to the well-being of the workers who perform them. If most job redesign programs have so far been instigated principally by management, this is a situation that has arisen primarily by default, but one that can be corrected.

Necessary Assumptions

Work-related problems and job dissatisfaction are usually assumed to be rooted in three general types of causes: The workers themselves (their motivation, skills, etc.); their jobs; and the "fit" between what workers want and what their jobs provide. Each type of causal assumption implies a distinctly different course of subsequent action. If the source of the problem is attributed to workers themselves, some type of training or retraining is suggested as a solution. Attributing the problem to job characteristics implies that the appropriate solution is one that involves changing working conditions, while attributing the problem to the job-worker "fit" points in the direction of job redistribution and reassignment.

The identification of such causes is not always as easy as it sounds. One manufacturing company adopted a job-training program after identifying its goal as reducing turnover among its newly hired, entry-level personnel, increasing numbers of whom were young black men, many of them "hard-core unemployed." The independent research organization studying this training program simultaneously conducted a study of the causes of turnover among the company's disadvantaged workers. It concluded—too late to be of much help—that this turnover was attributable almost exclusively to the poor quality of the jobs to which the disadvantaged were being assigned, something which no amount of training could change.[5] Thus, the training program failed not because it was poorly conducted but because it was irrelevant to the problem it intended to solve. A more appropriate solution would have involved either job redesign or modified placement procedures.

If the cause of the problem has been attributed either in whole or in part to characteristics of workers themselves, a program of change must confront the additional question of the extent to which differences among workers, especially in terms of their motivation, demands, and skills, will be taken into account. At one extreme there is the assumption that each worker is a unique individual and should be treated as such. However philosophically appealing it may be, this assumption is not a very useful one, except perhaps when it comes to counseling, skill training, or programed learning. When management plans to introduce a new machine or procedure, certain motivational assumptions must be made about the workers affected by the change.

At the other end of the spectrum is the assumption that all workers are pretty much alike, at least in terms of what they want from their jobs. Under this rubric of homogeneity are a number of stereotypes, including the "economic man" and the "self-actualizing man," described earlier, both of which can be faulted for their oversimplification in light of available data.

Between the two polar assumptions of "every worker is unique" and "all workers are basically alike," there are intermediate positions that make motivational assumptions only about workers in limited segments of the labor force or in a particular company where a program of change is about to be instituted. The principal danger in such assumptions is that, for lack of adequate data, they are prey to popular misconceptions (i.e., about disadvantaged workers, women workers, or young workers).

If the cause of the problem has been attributed to the work environment rather than to characteristics of workers themselves, there remains the further task of identifying the particular aspects of workers' jobs (e.g., hours, pay, supervision, work pace, etc.) that are

[5] Robert Quinn, B. D. Fine, and Teresa Levitin, *Turnover and Training: A Social Psychological Study of Disadvantaged Workers* (Springfield, Va.: National Technical Information Service, Operations Division, 1971), Document No. PB194775.

creating it. Although it is beyond the scope of this report to detail the multitude of working conditions that have been shown to be related to workers' attitudes,[6] many can be inferred from the targets of the experimental changes described in the remainder of this report.

Even if the cause is attributed to the work environment, the success or failure of a subsequent job redesign program may hinge on the motivational or other assumptions made about the workers undergoing the program. For example, Charles Hulin and Milton Blood's 1968 review of previous investigations attempting to determine the relationship between job enlargement and job satisfaction concluded that this relationship was contingent to a great extent upon characteristics of the workers involved, with alienated blue-collar workers being particularly unresponsive to job enlargement.[7] A conclusion such as this cautions against the wholesale application of any job redesign program without: (1) Reviewing previous experiments with the particular program, or similar programs, to determine the types of workers for whom the program is likely to be most and least effective; and (2) deciding whether the workers involved in the program's planned application have those personal characteristics that augur best for the program's success. Hulin and Blood's data, for example, indicate a job enlargement program may be more successful among white-collar workers than among alienated blue-collar ones.

Strategies and Findings

Matching Workers and Jobs

Selection and placement programs, when successful, contribute to job satisfaction by achieving a good "fit" between each worker and the characteristics of the job. Federal and State governments have long been active in attempting to meet the placement needs of employees and employers. In addition to the continuing activities of public employment agencies and special programs to provide employment for the disadvantaged, several new programs have been developed in the last few years, among them:

–Computerized job banks. A job bank, located in a particular city, is a listing of job orders, updated daily by computer and distributed to all local offices and cooperating community agencies in the area. Referral of applicants is controlled by telephone from a central point to insure that jobseekers are not sent to employers in excessive numbers or referred to jobs already filled. At present, computerized job banks do not involve true "matching" procedures but represent instead a technologically sophisticated means of maintaining updated lists of job openings. Experiments are being conducted, however, on computerized procedures that match jobseekers and openings, and it has been suggested that such matching go beyond educational and skill considerations to embrace individual values, preferences, and long-range ambitions on the one hand and relevant characteristics of jobs and their organizational settings on the other.

–New methods for the rapid dissemination of labor market information and improved occupational forecasts.

–Improved methods of providing career information to assist young people in choosing a career and planning their education accordingly.

–Improved methods for estimating workers' specific needs, interests, and potentials.

–Mobility assistance. Several recent experimental projects in matching workers and jobs have not subscribed to the usual assumption that such a matching need take place within a single community or local labor market. An ongoing project in Mississippi, Arkansas, and Tennessee, for example, is assisting unemployed and underemployed workers in moving from areas of high unemployment to areas of relatively low unemployment when jobs are available. Appropriate premove services–often involving counseling with the worker's whole family–can, according to preliminary findings, increase considerably the "success" of the move.[8] Several projects involving mobility assistance have addressed themselves to problems of migrant workers. One of these, concentrating on migrant workers in south Texas,

[6] For a recent annotated bibliography concerning the relationship between working conditions and workers' attitudes and behaviors, see James Taylor, Judith Landy, Mark Levine, and Divkar Kamath, *The Quality of Working Life* (Los Angeles: Center for Organizational Studies, Graduate School of Management, undated).

[7] Charles Hulin and Milton Blood, "Job Enlargement, Individual Differences and Worker Responses," in L. Cummings and W. Scott, Jr., *Readings in Organizational Behavior and Human Performance* (Homewood, Ill.: Irwin-Dorsey, 1969), pp. 377-393.

[8] Reported in *Manpower Research and Development Projects* (Washington: U.S. Government Printing Office, 1972), p. 29.

attempts to give "individualized, year-round service to migrants, particularly those who cross State lines."[9] The project emphasizes: Bilingual counseling; coordinating manpower-related supportive services available at Federal, State, and local levels; and using grants and an emergency loan fund for migrants.

Training

Training has for many years been one of the main ingredients of manpower programs.[10] Most of this training has been directed not at the population at large but at specific target groups whose educational needs are not adequately met by traditional educational institutions: High school dropouts; the economically disadvantaged; returning veterans; older workers; ex-offenders and prisoners; racial and ethnic minorities; and the handicapped.

It is clearly beyond the scope of this report to evaluate such programs as a whole.[11] Not only does their diversity defy generalization, but satisfactory evaluative data are scarce. Nevertheless, it can be said that manpower training programs have changed somewhat over the last several years[12] in ways that may suggest what has been tried in the past and either found wanting or found worthy of further exploration.

–Deemphasis of attempts to change attitudes and values. Not so long ago it was fashionable to speak of the disadvantaged as not having been adequately socialized into the world of work, as not subscribing to the "work ethic," or as not having the "right attitude" toward work in general and their own jobs in particular. Considerable effort was expended in training programs to rectify these presumed attitudes and values. Today's programs appear much less psychologically ambitious and concentrate instead on the teaching of more job-relevant skills and behaviors. This shift may reflect either the belated realization that attitudes cannot be so easily changed in a few weeks of training, or that the work-related attitudes of the disadvantaged do not differ demonstrably from those of other people.

–A move from classroom training to on-the-job training. While classroom trainees greatly outnumbered those in on-the-job training programs in 1968, several on-the-job programs accounted for more than twice as many enrollees as institutional training by late 1972.

–An increased emphasis on training that is custom tailored to a worker's specific needs. Newer approaches to providing job training for the disadvantaged attempt to look at each worker as an individual with specific needs and skills that will make him or her more or less suited to the demands of the current job market.

–An increased integration of training with other services. It is difficult nowadays to find a manpower training program that is *just* a training program. More commonly, training activities are being integrated with a wide variety of employment services, most conspicuously counseling, placement, and upgrading.

Changing the Job: Hours

Among the many types of experiments and demonstration programs being undertaken to improve working conditions, perhaps none has such far-reaching implications as those involving alterations of working hours. Not only are these alterations relevant to leisure time use, transportation, and labor force participation but, to the extent that they attract more married women into the labor force, they may change sex roles and family roles as well.

Many of these alterations in hours are described and evaluated by Albert Glickman and Zenia Brown,[13] who draw upon both American and European experiences. Glickman and Brown distinguish several different types of arrangements in hours:

[9] Ibid, p. 30.

[10] Training in the broad sense of "learning" takes place every day in every job. This discussion is quite arbitrarily limited to manpower training programs. Consideration of the effectiveness of the American educational system in preparing youth for jobs is beyond the scope of this report. Also excluded from consideration are all of the innumerable attempts of employing establishments to train their employees.

[11] References to and summaries of many studies involving the implementation and assessment of manpower training projects are to be found in, among other sources, the Manpower Administration's annual publication, *Manpower Research and Development Projects*. An annual summary of major training activities and their results has been provided in the *Manpower Report of the President*, 1963 through 1973. Figures on enrollments, trainee characteristics, and Federal funding are included in the Report's statistical appendix.

[12] Excluded from this discussion are trends involving revenue sharing, decentralization of control, and decategorization of programs.

[13] Albert Glickman and Zenia Brown, *Changing Schedules of Work: Patterns and Implications* (Washington: American Institutes for Research, 1973).

–Fixed working time, best represented by the 5-day, 40-hour week, but with three significant variations–(a) Compact workweek, generally involving a 4-day week of 40, 38, 37, 36, or in a few instances, 32 hours; (b) shift work; and (c) staggered working hours, wherein starting and finishing times are staggered at 1/4 to 1/2 hour intervals.

–Rational working hours wherein, in anticipation of changing work demands, contracts of employment provide for more hours to be worked in some periods than others, or on particular days.

–Variable working hours, wherein each employee has complete freedom in the choice of times he or she decides to work, subject to his or her responsibility for completing the total hours contracted.

–Flexi-time, wherein each employee is allowed to start and finish the work day, *within certain limits*, when he or she pleases (e.g., arriving in the morning at any time within a 2-hour interval and leaving in the afternoon at any time within a 2-hour interval, providing the contracted number of hours are worked during the day).

Most current experiments in changing work schedules[14] involve moving from the 5-day, 40-hour week to either the compact workweek or flexi-time. The more common change is the former. As of November 1972, Kenneth Wheeler estimated that 2,000 companies had adopted the 4-day week.[15] "Firms on such a schedule," according to Glickman and Brown, "are generally small, employing less than 500 people, and are non-union. Even where the 4-day week is in effect in large organizations, we find that, with only a few exceptions, it is in small departments. . . ." (p. 19).

Experiments introducing the compact workweek have been limited by a number of factors that make them difficult to evaluate, including: Unclear statements of the goals to be achieved; lack of control groups or situations; and the simultaneous introduction of other changes confounded with the changes in work schedules. Surveys of employee attitudes toward their 4-day weeks have usually been conducted after the introduction of the schedule change and do not use pre- and post-change measures. One of the better (yet far from perfect) studies of the reactions of workers to the introduction of a 4-day week,[16] found that workers' attitudes were generally favorable to the new schedule and that there was a 10-percent decrease in absenteeism, a decrease that held up over time when controlled for seasonal factors. It should be noted, however, that a comparable decrease in absenteeism has not been found consistently where compact workweeks have been introduced.

There is little evidence to indicate that compact workweeks decrease productivity. Instead, the evidence seems to document either no changes in productivity or increases resulting from reduced set-up time and more efficient use of facilities rather than from increased individual output.

The most consistent finding with regard to the effects of the compact workweek is that its "success," at least from management's perspective, is heavily contingent upon both the type of technology involved and the personal characteristics of those experiencing the new schedule–especially their age, sex, marital status, and preparation for dealing with suddenly "freed" workdays that become available for nonwork activities. Like experiments with job redesign, the success of experiments in compact workweeks depends greatly upon the needs, values, life styles, and other characteristics of the workers experiencing the experimental change.

Experiments with flexi-time are less frequent and mainly European based, but their prognosis is good. Not only do such schedules alleviate some transportation problems, but they permit a better "fit" between a worker's hours and those of other members of his or her household. Their application is, however, limited to technologies that do not require that all workers be present simultaneously. Glickman and Brown raise the justifiable reservation that:

> . . . not all firms or jobs in certain firms are suited to flexi-time. For example, some people are necessary during the opening hours, such as switchboard operators and receptionists. Obviously, it would be difficult to have people like bus drivers on flexible hours. Some jobs are closely interlinked such as in assembly lines and continuous processing. If component activities are not coordinated, chaos can ensue. This is not to say that manufacturing firms could not go to flexi-time. It is possible with careful planning. In Switzerland, a watch manufacturer which does operate an assembly line is trying it out now.[17]

While compact workweeks and flexi-hours may seem revolutionary according to some standards, they are

[14] The most comprehensive summary of the results of these experiments is provided by Glickman and Brown, op. cit. For a summary review, see Janice Hedges, "New Patterns for Working Time," *Monthly Labor Review*, February 1973, pp. 3-8.

[15] Wheeler's statistics, as reported here, may be found in Glickman and Brown, op. cit.

[16] Walter Nord and Robert Costigan, "Worker Adjustment to the Four-Day Week: A Longitudinal Study," *Journal of Applied Psychology*, August 1973, pp. 60-66.

[17] Glickman and Brown, op. cit., p. 38.

slightly embellished variations of the fixed working schedules that sanctify full-time employment throughout an uninterrupted workday. This sanctification has its opponents. Judith Agassi[18] and others interested in increasing the labor force participation of women argue that working hours should be arranged so as to best accommodate those who want to work, even if they do not want to work "full-time." Robert Kahn[19] has proposed the institution of "work modules." A module, according to Kahn's definition, is a unit of work-related activity that generally lasts no less than 2 hours. Each person's job, Kahn argues, should be built out of such basic units so as to equal the total number of hours he or she wants to work and to approximate the mixture of modular activity that best suits the needs of both the worker and the employer.

Changing the Job: Bases of Compensation

The possibility that "good performance leads to job satisfaction," rather than vice versa, has stimulated experiments with a number of unique compensation plans that attempt to forge a stronger link between a worker's effort or performance on the one hand and compensation on the other.

On the simplest level are a variety of profit-sharing plans that differ primarily in their principles and schedules of payment. Much attention has centered on the Scanlon plan[20] which involves money bonuses to all members of a firm, in proportion to their base pay rates, for all improvements in overall company efficiency relative to some base period, supplemented by a system of work improvement committees that cross organizational levels. The plan's latter aspect distinguishes it from conventional profit-sharing arrangements, since it implies redistribution among workers of certain types of information and control that are normally the prerogatives of management.

One of the "showcase" Scanlon plan companies is an automotive parts manufacturer. Changes introduced at the firm following the plan's introduction allowed quality control personnel to be reduced from 14 to 4, although production doubled. The percentage of returned goods declined from 3 percent to 0.2 percent, and scrap loss from 13 to 3 percent.[21]

[18] Agassi, op. cit.

[19] Robert Kahn, "The Work Module: A Tonic for Lunch Pail Lassitude," *Psychology Today*, February 1973, pp. 35-39.

[20] F. Lesieur, *The Scanlon Plan* (Cambridge, Mass.: Technology Press of MIT, 1958).

[21] Judson Gooding, "It Pays to Wake Up the Blue-Collar Worker," *Fortune*, September 1970, pp. 133 ff.

Another way in which traditional compensation plans have been altered experimentally involves the compensation of a worker on the basis of the number of jobs he or she can do, rather than on the basis of how much a worker can do of one task in a set period of time. This type of compensation was featured in experiments at two large companies. Unfortunately, so many other changes were introduced in these companies along with changes in compensation that it is impossible to assess the contribution of the altered base of compensation to the reported successes of the two experiments.

Changing the Job: Supervision

Experimental changes in supervision have generally been one of two types. In the first there are a number of changes in the structure of work groups, most often an increase in workers' influence on the setting of goals and other decisions that affect them. Frequently associated with this wider distribution of decisionmaking are changes in authority and communication.

Among the better controlled experiments in this category was one conducted in four similar divisions of the clerical operations of a large insurance company. An "autonomy" program was introduced into two divisions and was designed to increase the role of rank-and-file employees in decisionmaking. A second program, the "hierarchically controlled" one, was introduced into the other two divisions and was designed to increase the role of upper management in decisionmaking. As predicted, there was an increase in job satisfaction in the autonomous program. *Both* programs, however, raised productivity significantly, with the hierarchically controlled version resulting in the greater increase.[22]

A second widely used means of changing supervision places the emphasis upon changing the supervisors themselves—by sending them to T-groups or other types of training efforts in which personnel from several departments, plants, or even companies participate. The training received in such sessions ranges from the teaching of specific supervisory skills to attempts to change supervisors' attitudes, beliefs, values, and behavioral styles. It is interesting that while such attempts to overhaul the trainee's personality persist in the training of supervisors, it is becoming less frequent in the training of rank-and-file workers. More recent efforts have been aimed at training workers and supervisors not

[22] N. Morse and E. Reimer, "The Experimental Change of a Major Organizational Variable," *Journal of Abnormal and Social Psychology*, 1956, pp. 120-129.

as isolated individuals, but in the "natural" groups in which they work together. This approach recognizes that supervision is a two-way relationship and can be changed most effectively by readjusting the mutual relationships *among all parties involved.*

Changing the Job: The Work Performed

There is nothing new in attempting to change attitudes or behavior at work by altering the tasks workers do and how they do them. Task-focused experiments in job change date back to the early days of scientific management when attempts were made to reduce tasks to their basic components, each of which could be handled efficiently by a single worker. Job enrichment/enlargement moves in the opposite direction and attempts to reconstruct "meaningful" jobs from these disassembled pieces—i.e., jobs that are more varied, responsible, challenging, and intellectually or emotionally rewarding.

In principle, job "enlargement" refers to an increase in the number and variety of operations (all of them requiring more or less the same level of skills) that an individual performs. Job "enrichment," on the other hand, often involves the addition of tasks that may cut across hierarchical levels or traditionally organized departments or work groups in an attempt to give the worker a job that he or she can follow from start to finish (e.g., assembling an entire piece of equipment, checking it, and repairing it). Enrichment programs will often entail other changes as well: Workers determine their own work pace within limits; they serve as their own inspectors; they repair their own mistakes; and they are responsible for their own machine setup, repair, or choice of method.

In practice, however, it is not always possible to distinguish job enrichment from job enlargement. Most experiments involve elements of both, the two terms are often used interchangeably, and at times the term "humanization of work" is used as an all-purpose substitute for both.

Two critical reviews of enrichment/enlargement experiments concluded prior to 1968 reached inconsistent conclusions. According to the first:

> . . . the argument for larger jobs as a means of motivating workers, decreasing boredom and dissatisfaction, and increasing attendance and productivity is valid only when applied to certain segments of the work force—white-collar and supervisory workers and nonalienated blue-collar workers.[23]

[23] Hulin and Blood, op. cit., p. 388.

The following year a review of 10 studies that involved both enrichment and enlargement was more favorable. All 10 investigations found that job enrichment/enlargement led to higher quality work. However, it resulted in *increased productivity in only 4 out of th* relationships

A number of additional experiments ment/enlargement have been reported since these two reviews were concluded.[25] Had previous trends continued, their results would be expected to be ambiguous at best; instead, the alleged successes of many have been nothing short of spectacular. The later studies differ from the earlier ones in two other ways as well. The earlier ones were reported for the most part in scholarly journals while the later ones found their way immediately into the popular press. In the earlier experiments, the companies where the experiments took place generally remained anonymous, but this was far from the case in the later studies. With these caveats to the reader, a sampler of some of the more recent experiments and their reported effects can be provided.

In August 1971, at a large electronics firm, an experiment in group production was begun by having a team of two women assemble entire pocket-paging units. The women were dealing with a new product similar to others that had traditionally been assembled on ordinary electronic industry insertion lines. The first team found the new work method sufficiently challenging and satisfying to convince 18 other workers to adopt it. As a result the workers reportedly gained a "sense of pride in and true responsibility for" their work. The newly organized teams increased production from 5 units per day at the outset to 15 units per day after the new procedure was thoroughly established.

A Swedish automaker's experiment with a new system of assembling engines is an application of the same "team assembly" approach on a larger scale. In place of an assembly line, six teams of three women each work over engine blocks in alcoves at one end of the factory. Each team may decide how to divide its functions and, although some women continue to assemble the entire engine, most groups prefer to share the work. According to early reports, sick leave under the new system has already been reduced, and turnover during the test period fell below 20 percent compared with rates of 30 to 50 percent in the past. Costs for the team-assembly procedures and the traditional line assembly are estimated to be roughly the same.

[24] Edward Lawler III, "Job Design and Employee Motivation," *Personnel Psychology*, 1969, pp. 426-435.

[25] For a fuller list see the appendix of *Work in America*, Report to Secretary of HEW, pp. 188-201.

Another major Swedish automaker has provided job rotation, with workers themselves encouraged to design their own rotation schedule. About a fifth of the workers in the plant now rotate jobs, and management appears to have been sufficiently impressed with the success of the plan to have experimented with it for 8 years. A similar approach is being tried by a photographic equipment manufacturer where employees are rotated between factory and more attractive nonfactory jobs. Employees reportedly felt a greater "sense of challenge" while learning their new jobs but experienced some frustration upon returning to the production line, until they were finally and permanently transferred. From the company's point of view the experiment was a success because turnover and absenteeism declined and recruiting for factory jobs became easier when recruits realized they were not walking into dead end production-line jobs.

One firm was experiencing a loss of efficiency among its twist frame cleaners because cleaning the frames was a dirty, repetitive, and undesirable job. The job was eliminated and given to the frame operators themselves, and there was a 12-percent increase in productivity over the next 2 years. In this instance a job was enlarged, but not in an attractive way. Nevertheless, since the twist frame operators were given more responsibility and authority, the overall result was "positive," according to management.

Faced with decreased profits, one company selected a plant with about 50 employees for an ambitious experiment. With labor-management cooperation, shifts were organized into flexible subgroups responsible for production in assigned work areas. Individual workers were not assigned specific jobs; the organization was built up without supervisors; each worker was given the opportunity to learn all the tasks within the subgroup through job rotation and mutual aid; and a bonus system was installed that paid workers according to factors they themselves could influence, such as quantity produced, cost, loss of materials, and working hours. A marked increase in job satisfaction was reported and costs per ton decreased by about 30 percent during the first 6 months of the project. Absenteeism in the experimental factory was 4 percent as against 7 percent for a control factory.

What is particularly instructive about the reported success of this company's job redesign program was its apparent development in response to strictly localized needs on the basis of the joint thinking of management and labor. It did not embody any prepackaged program of job redesign but represented instead the product of the participants' efforts to focus the technological and intellectual resources available to them on solving problems of mutual concern. Whether the solution that was finally evolved would work in another plant or even in a different plant in the same firm is questionable—and irrelevant.

Evaluating the Change

While there is no shortage of ideas of how job satisfaction may be improved by changing working conditions, an obvious shortage of evidence plagues many reports of experiments implementing these changes. This is especially true of some of the more recent experiments with working hours and with job enrichment/enlargement. To establish that a particular change does indeed increase job satisfaction or accrue other benefits to either employees or employers, an ideal experiment would have to meet at least five standards:

—The work situations chosen for investigation should be selected by sampling techniques that guarantee that the findings can be generalized to the relevant populations of jobs and workers.

—Experimental changes should be introduced one at a time—not as a cluster—so that a change in job satisfaction can be traced to the single relevant experimental change. In some cases, of course, only a cluster of changes will have any effect. For example, a particular job redesign may be ineffective unless accompanied by corresponding changes in supervision and wages—changes that reflect the new organizational patterns created by the redesign.

—Control groups are needed. The before-versus-after comparison for the group undergoing the experimental change should also be made for another comparable group not undergoing it and a third group undergoing an irrelevant change (a placebo). This procedure establishes that "before" and "after" differences are attributable to the experimental change and not to other intervening events.

—The research designed to evaluate the work-related change should be conducted by impartial individuals or groups who have no stake in the outcome of the experiment.

—The efficiency of the change should be assessed. Efficiency represents the cost entailed, according

to a particular perspective, in achieving a desired outcome. Many experiments in job redesign are conducted with unclear commitments to a particular perspective and, as a result, an unclear statement of the goals they are intended to achieve. Their efficiency cannot, therefore, be assessed adequately.

Such confusion concerning perspectives shows up most clearly in many firms' reports of the success of their job redesign programs. Quite a few of these programs are based on the naive assumption that all good things will go together and that the changes instituted will increase both job satisfaction and productivity. Many reports of such programs attest to improvements in both areas. But there are disconcerting notes. One of the most widely publicized "successful" job redesign programs has yet to become commonplace even at the site of its origin. While the company reports that the program is successful and publicly subscribes to its goals, it is curious that the program, even after several years of experimentation and development, is confined to a small minority of the company's employees. Why?

One answer to this question is that the program's cost-benefit ratio has not yet justified the expense of large-scale application. Considerations of efficiency are therefore essential if job redesign programs are to be considered seriously by cost-conscious employers.[26]

Of the many recent experiments introduced in order to improve working conditions, increase job satisfaction, and secure other desired results, very few even come close to meeting the above standards. Rigorous sampling is almost nonexistent; changes are usually introduced in clusters rather than one at a time (management is generally, and understandably, eager to try anything that might "work"); and evaluation is usually in the hands of those who introduced, and may well be held responsible for, the failure of the experimental change under investigation. Control groups are rare, as are estimates of efficiency (admittedly difficult to obtain).

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[26] The cost of the experiment itself is likely to overstate how much the change would cost were it adopted by a firm on a large scale. "Experiments" are notoriously expensive. They consume considerable managerial time in their planning, require many hours of expert time in their execution, and often involve expensive outside consultants as well. Many false starts are often made. Problems of internal coordination are also created when the activity of one group of workers under an "experimental" program has to be integrated with that of groups using conventional methods. A better cost estimate of redesign programs is not the cost entailed in the experiment but the cost that would be entailed were the program to become routinized and commonplace.

THE MORE THINGS CHANGE ...

Great hopes were once held for a promising "new trend" in techniques for improving job satisfaction and quality of employment:

> . . . still more important than the valued commercial profit on both sides is the cultural gain which will come to the total economic life of the nation, as soon as everyone can be brought to the place where his best energies may be unfolded and his greatest personal satisfaction secured. (This technique) offers no more inspiring idea than this adjustment of work and psyche by which mental dissatisfaction with the work, mental depression, and discouragement may be replaced in our social community by overflowing joy and perfect inner harmony.[1]

This somewhat overflowing promise may at first sound as if it had come from a contemporary advocate of job enrichment, job enlargement, or similar efforts. Instead, it dates from 1913 and advocates techniques quite opposite in their assumptions to that of contemporary job redesign–techniques of "scientific management," or, as it is sometimes called in honor of one of its most prominent proponents, Taylorism.

It is now 60 years later and the solution to many problems of job satisfaction or job design remains elusive. In the interim many job change movements have had their heyday: Scientific management; psychological services in industry; the "human relations" approach; operations research; computer simulation; and job enrichment. Job-improvement efforts emphasizing training or collective bargaining have held steady or expanded through the whole period while other movements have come and, if not exactly gone, at least abated. Some movements (operations research, simulation, and job enrichment) have only recently come into their own while others represent newer, more sophisticated versions of earlier ones. As Harold Leavitt, commenting on the relationship between scientific management and operations research, notes, "Change the setting from Bethlehem, Pennsylvania to Madison Avenue, the time from 1910 to 1962, the costuming from overalls to grey flannels, and the tasks from simple muscular labor to complex scheduling decisions. Then replace time and motion study with linear programming or PERT, and replace the stopwatch with the computer. The story line can remain intact."[2] Likewise, many job redesign programs of today share a number of the same psychological assumptions as the human relations movement of the 1940's and 1950's.

None of these approaches to jobs and job satisfaction has to date provided *the* solution to workers' problems. Fortunately, however, the knowledge obtained through studies and experiments applying the philosophies of these approaches has been cumulative. In its most modern incarnation, each approach is considerably more sophisticated in both theory and technique than were its ancestors. Today we are better equipped than ever to apply the best of each to the problems faced by American workers.

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[1] H. Munsterberg, as quoted by R. Bendix in *Work and Authority* (New York: Wiley, 1966), p. 275.

[2] Harold Leavitt, "Applied Organizational Change in Industry," in James March's *Handbook of Organizations* (Chicago: Rand-McNally, 1965), p. 1150.

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APPENDIXES

APPENDIX A
Characteristics of the National Surveys Cited

For the eight Gallup studies cited, the question upon which the job satisfaction percentages are based was the same, "On the whole, would you say that you are satisfied or dissatisfied with the work you do?" The response categories for the question were "satisfied," "dissatisfied," and "don't know." Gallup samples approximate the adult civilian population living in private households in the United States. Gallup studies through 1969 used a lower age limit of 21 years; in 1971 and following years, the age limit was lowered to 18 years. The Gallup data presented in figure 2 deal only with a subsample of males, ages 21 through 65, who responded to the job satisfaction question as "satisfied" or "dissatisfied" ("don't know" responses and missing data have been excluded from percentage bases). The base N's for the subsamples used in the present analysis for each of the Gallup surveys are as follows:

July 16, 1963	1,469
August 6, 1965	1,338
September 6, 1966	1,361
September 29, 1966	1,340
March 25, 1969	585
August 17, 1971	516
December 7, 1971	558
January 23, 1973	526

Presented below, for all non-Gallup studies used in the analysis are the questions, their response categories, and brief descriptions of the populations sampled. The table, "Sample Sizes by Race, Education, Age, and Sex," reports the subsample sizes upon which the percentages in appendix D are based.

Study:
Survey Research Center
The University of Michigan
1958

Question:
"Taking into consideration all things about your job, how satisfied or dissatisfied are you with it?"

Response Categories:
Very satisfied
Satisfied
Neutral
Ambivalent
Dissatisfied

How Response Categories Are Used in Figure 1 and Appendix D:
"Very satisfied" and "satisfied" are used as "satisfied"
"Ambivalent" and "dissatisfied" are used as "not satisfied"
"Neutral" is excluded from the percentage base.

Population Sampled:
The sample was representative of civilian working men in the United States who were 21 years of age or older and who lived in private households. The current analysis is based upon a subsample of workers who responded "very satisfied," "satisfied," "ambivalent," or "dissatisfied" to the job satisfaction question. The N for the subsample is 859.

Study:
National Opinion Research Center
1962

Question:
"How satisfied are you with your job right now—would you say very satisfied, moderately satisfied, a little dissatisfied, or very dissatisfied?"

Response Categories:
Very satisfied
Moderately satisfied
A little dissatisfied
Very dissatisfied
Don't know

How Response Categories Are Used in Figure 1 and Appendix D:
"Very satisfied" and "moderately satisfied" are used as "satisfied"
"A little dissatisfied" and "very dissatisfied" are used as "not satisfied"
"Don't know" is excluded from the percentage base.

Population Sampled:
The sample was representative of civilian working adults in the United States. The current analysis is based upon a subsample of workers who responded "very satisfied," "moderately satisfied," "a little dissatisfied," or "very dissatisfied" to the job satisfaction question. The N for the subsample is 1,027.

Study:
Survey Research Center
The University of California
1964

Question:
"All in all, how satisfied are you with your present job?"

Response Categories:
Very satisfied
Fairly satisfied
Not too satisfied
Don't know

How Response Categories Are Used in Figure 1 and Appendix D:
"Very satisfied" and "fairly satisfied" are used as "satisfied"
"Not too satisfied" is used as "not satisfied"
"Don't know" is excluded from the percentage base.

Population Sampled:
The sample was representative of civilian working adults in the United States. The modified probability sampling method had age and sex quotas at the block level. The current analysis is based upon a subsample of workers who responded "very satisfied," "fairly satisfied," or "not too satisfied" to the job satisfaction question. The N for the subsample is 1,025.

Study:
National Opinion Research Center
1964

Question:
"All things considered, how satisfied are you with the job as a whole?"

Response Categories:
Very satisfied
Fairly satisfied
Somewhat dissatisfied
Very dissatisfied
Don't know

How Response Categories Are Used in Figure 1 and Appendix D:
"Very satisfied" and "fairly satisfied" are used as "satisfied"
"Somewhat dissatisfied" and "very dissatisfied" are used as "not satisfied"
"Don't know" is excluded from the percentage base.

Population Sampled:
The sample was representative of civilian working men in the United States. The current analysis is based upon a subsample of workers who responded "very satisfied," "fairly satisfied," "somewhat dissatisfied," and "very dissatisfied" to the job satisfaction question. The N for the subsample is 3,086.

Study:
Survey Research Center
The University of Michigan
1969

Question:
"All in all, how satisfied would you say you are with your job—very satisfied, somewhat satisfied, not too satisfied, or not at all satisfied?"

Response Categories:
Very satisfied
Somewhat satisfied
Not too satisfied
Not at all satisfied
Don't know

How Response Categories Are Used in Figure 1 and Appendix D:
"Very satisfied" and "somewhat satisfied" are used as "satisfied"

"Not too satisfied" and "not at all satisfied" are used as "not satisfied"
"Don't know" is excluded from the percentage base.

Population Sampled:
The sample was representative of civilian working adults in the United States who were 16 years of age or older, living in private households, and working 20 hours or more per week. The current analysis is based upon a subsample of workers who responded "very satisfied," "somewhat satisfied," "not too satisfied," or "not at all satisfied" to the job satisfaction question. The N for the subsample is 1,529.

Study:
Survey Research Center
The University of Michigan
1971

Question:
"All things considered, how satisfied are you with your job?"

Response Categories:
The responses were based on a seven-point scale, with point one designated as "completely satisfied," point four designated as "neutral," and point seven designated as "completely dissatisfied." Points two, three, five, and six did not have specific designations.

How Response Categories Are Treated in Figure 1 and Appendix D:
Points one through three are used as "satisfied."
Points five through seven are used as "not satisfied."
Point four is excluded from the percentage base.

Population Sampled:
The sample was representative of civilian working adults in the United States. The current analysis is based upon a subsample of workers who worked 20 hours or more per week and responded to points one through three and points five through seven of the job satisfaction question. The N for the subsample is 1,025.

Study:
Survey Research Center
The University of Michigan
1973

Question:
"All in all, how satisfied would you say you are with your job—very satisfied, somewhat satisfied, not too satisfied, or not at all satisfied?"

Response Categories:
Very satisfied
Somewhat satisfied
Not too satisfied
Not at all satisfied
Don't know

How Response Categories Are Used in Figure 1 and Appendix D:
"Very satisfied" and "somewhat satisfied" are used as "satisfied"
"Not too satisfied" and "not at all satisfied" are used as "not satisfied"
"Don't know" is excluded from the percentage base.

Population Sampled:
The sample was representative of civilian working adults in the United States, 16 years of age or older, living in private households. and working 20 hours or more per week. The current analysis is based upon a subsample of workers who responded "very satisfied," "somewhat satisfied," "not too satisfied," or "not at all satisfied" to the job satisfaction question. Descriptive statistics are based on the weighted subsample, N = 2,153. F-ratios, t-tests, etas and probability levels were all calculated on the unweighted subsample, N = 1,496.

SAMPLE SIZES BY RACE, EDUCATION, AGE, AND SEX

Demographic subsamples	Year and source							
	1958	1962	1964	1964	1969	1971	1973	
	Survey Research Center, U of Michigan	National Opinion Research Center	Survey Research Center, U of California	National Opinion Research Center	Survey Research Center, U of Michigan	Survey Research Center, U of Michigan	Survey Research Center, U of Michigan	
							Weighted	Unweighted
Race								
White	—[1]	873	885	2,716	1,352	890	1,901	1,310
Black and other minorities	—[1]	141[9]	140	343[9]	157[9]	131	175[9]	129[9]
Education								
Grade school	259	246	194[10]	721[10]	234	147[10]	240	173
High school	389	537	531	1,417	822	476	1,132	773
Some college	204[2]	123	126	409	253	174	449	306
College degree	204[2]	72	—[11]	224	111	93	169	125
Graduate work	204[2]	43	—[11]	185	101	67	158	111
Age								
Under 21 years	—[3]	17	101[12]	104	97	51	178	87
21 to 29 years	274[4]	189	104[13]	606[14]	331	245	584	398
30 to 39 years	216[5]	252	260	804[15]	310	233	441	334
40 to 49 years	191[6]	258	231	777[16]	350	209	451	302
50 years and older	178[7]	304	279	795[17]	434	287	499	370
Sex								
Men	852	682	675	3,086[8]	990	619	1,338	1,014
Women	—[8]	346	350	—[8]	538	406	817	479

[1] Race data not reported.
[2] No distinctions were made in this survey between workers with "some college," "a college degree," nor education in excess of a college degree. The same N, 204, is therefore entered in all three rows of this column and is based on workers with an education in excess of "high school."
[3] Data for workers under 21 years not reported.
[4] 21 to 34 years.
[5] 35 to 44 years.
[6] 45 to 54 years.
[7] 55 years and older.
[8] Men only.
[9] Blacks only.
[10] Eighth grade education or less.
[11] Higher education data not reported.
[12] Under 25 years.
[13] 25 to 29 years.
[14] 21 to 30 years.
[15] 31 to 40 years.
[16] 41 to 50 years.
[17] 51 to 75 years.

APPENDIX B
Problems with Single-Question Measures of Overall Job Satisfaction

Some Common Problems of Measurement

Different job satisfaction measures have different points at which discontent begins to register. This point is the measure's "threshold of discontent." The following are six very generally phrased single questions designed to measure overall job satisfaction, together with the national percentage of "dissatisfied" workers estimated by each in 1969.

Percentage of "dissatisfied" workers[1]		*Question*
14	A.	All in all, how satisfied would you say you are with your job?
22	B.	How often do you leave work with a good feeling that you've done some things particularly well?
36	C.	Knowing what you know now, if you had to decide all over again whether to take the job you now have, what would you decide?
37	D.	If a good friend of yours told you (he/she) was interested in working in a job like yours for your employer, what would you tell (him/her)?
43	E.	How often do you get so wrapped up in your work that you lose track of time?
51	F.	If you were free to go into any type of job you wanted, what would be your choice?

Thresholds of discontent depend on a number of factors, most of which are illustrated in the above questions:

–More dissatisfaction is reported when workers are asked whether they enjoy their jobs (Questions B and E, above) than when "satisfaction" with the job is asked about specifically.

–More dissatisfaction is reported when the question concerns another–even a hypothetical–worker (Question D) than when the question focuses on the respondent.

–More dissatisfaction is reported when the question raises the (hypothetical) issue of the worker's reliving his or her life (Question C) than when it directs attention to the worker's present reaction to the job.

–More dissatisfaction is reported when workers are invited to consider attractive alternatives to their present jobs (Questions C and F) than when they are asked for their reactions to their present jobs on a noncomparative basis.

–More dissatisfaction is reported when permissible answers to a question include several degrees of dissatisfaction (and especially a response alternative reflecting ambivalence or indifference).

These patterns lead to one important conclusion–namely, that the two most frequently used subjective measures of job satisfaction, "All in all, would you say you are satisfied or dissatisfied with your job?", and its variant, "On the whole would you say you are satisfied or dissatisfied with the work you do?" produce the highest estimate of satisfied workers.

Defensive reactions of workers to questions about job satisfaction. Workers do not generally share the assumption made by investigators that job satisfaction questions are intended to measure feelings about the job. Instead, they may view such questions as trying to find out indirectly some "deeper" things about themselves. A large component of a worker's personal identity may stem from the work role, and workers' decisions regarding choice of occupations and employers, when they have such choices, are among the most important decisions that they will make in their lives. Job satisfaction questions, to some undetermined degree, may elicit a form of defensiveness that can bias answers in the direction of making workers appear on the whole more satisfied than they really are. Workers may feel that being dissatisfied is their own fault because of having chosen the wrong job or not bothering to do anything to get another one. They may, therefore, view their reports of job dissatisfaction as reflecting poorly on their own decisionmaking abilities.

Job satisfaction as a way of overcoming difficulties with the job. Workers' reactions to job satisfaction questions may indicate an attempt to rationalize the problems they may face at work. Those who begin to feel dissatisfied with their jobs may find a prolonged state of chronic dissatisfaction uncomfortable. Yet, for one reason or another they may be unable to change jobs. As a result, they may exaggerate the good points of their work and minimize the limitations; in other words, they may lower their expectations, demand less of their job, and report that they are satisfied with their present work.

Some Problems of Interpretation

Absolute levels of job satisfaction are much more difficult to determine than relative ones. The three problems of measurement cited above make it clear that no simple or sure way has been devised for determining absolute levels of job satisfaction.

While existing measures of job satisfaction provide dubious estimates of absolute levels of satisfaction, they prove very useful for *comparing* the satisfaction of workers in different occupations, at different levels of hierarchy, in different demographic groups, and at different times.

APPENDIX C

Sampling Errors at the 95-Percent Confidence Level

The following table indicates the approximate allowance that should be made for the sampling error of a percentage at the 95-percent confidence level. For example, if a percentage for a subsample is 72 percent, in a sample of 750, go to the row titled "Percentages near 70" under the "700" column. The figure at that point is four, which means that the sample is subject to an error of plus or minus four points. In other words, 95 out of 100 repeated samplings would show a percentage somewhere between 68 and 76. Depending on its sampling precision, every survey has its unique sampling errors. This table of sampling errors was constructed without a consideration of the unique characteristics of the surveys reviewed. It is at best an approximate guideline for estimating the statistical significance of the percentages reported in appendix D and figures 1 and 2.

ALLOWANCES FOR A SAMPLING ERROR OF PERCENTAGE

Percentage range	Sample size						
	1500	1000	700	500	400	200	100
Percentages near 70	3	4	4	5	6	8	10
Percentages near 80	3	3	4	4	5	7	9
Percentages near 90	2	2	3	3	4	5	7
Percentages near 95	2	2	2	2	3	4	5

APPENDIX D

PERCENTAGE OF "SATISFIED" WORKERS 1958-73, BY RACE, EDUCATION, AGE, AND SEX

Demographic subsamples	Year and source						
	1958	1962	1964	1964	1969	1971	1973
	Survey Research Center, U of Michigan	National Opinion Research Center	Survey Research Center, U of California	National Opinion Research Center	Survey Research Center, U of Michigan	Survey Research Center, U of Michigan	Survey Research Center, U of Michigan
Race							
White	--[1]	84	92	92	86	91	90
Black and other minorities	--[1]	76[9]	86	88[9]	77[9]	89	85[9]
Education							
Grade school	88	83	94[10]	94[10]	88	91[10]	93
High school	77	81	90	90	86	92	89
Some college	81[2]	86	89	89	81	88	88
College degree	81[2]	90	--[11]	94	85	85	91
Graduate work	81[2]	84	--[11]	93	91	97	96
Age							
Under 21 years	--[3]	59	82[12]	88	75	80	77
21 to 29 years	74[4]	74	89[13]	87[14]	76	85	84
30 to 39 years	79[5]	82	90	93[15]	88	90	92
40 to 49 years	85[6]	84	92	92[16]	87	93	94
50 years and older	90[7]	88	95	94[17]	91	95	96
Sex							
Men	81	84	90	92	88	90	91
Women	--[8]	81	93	--[8]	81	92	89

[1] Race data not reported.
[2] No distinction was made in this survey between workers with "some college," "a college degree," nor education in excess of a college degree. The same percentage, 81, is therefore entered in all three rows of this column and is based upon the percentage reported by the survey of "satisfied" workers with education in excess of "high school."
[3] Data for workers under 21 years not reported.
[4] 21 to 34 years.
[5] 35 to 44 years.
[6] 45 to 54 years.
[7] 55 years and older.
[8] Men only.
[9] Blacks only.
[10] Eighth grade education or less.
[11] Higher education data not reported.
[12] Under 25 years.
[13] 25 to 29 years.
[14] 21 to 30 years.
[15] 31 to 40 years.
[16] 41 to 50 years.
[17] 51 to 75 years.

APPENDIX E

MEAN JOB SATISFACTION IN 1973, BY SELECTED DEMOGRAPHIC AND OCCUPATIONAL CHARACTERISTICS

Demographic or occupational subsample	Satisfaction measure		
	Overall[1]	Financial rewards[2]	Challenge[3]
Race[4]			
White (N=1900)[5]	2	3.14	3.25
Black (N=175)[5]	-34	2.72	2.97
Eta[6,7]	.11	.13	.12
t[7]	4.36	4.94	4.40
d.f.[7]	1437	1418	1423
p[7]	<.001	<.001	<.001
Education			
8 years or less (N=242)	-2	2.93	3.24
Some high school (N=305)	-10	2.85	3.18
High school diploma (N=826)	-7	3.16	3.14
Some college (N=449)	-8	3.10	3.16
College degree or more (N=327)	24	3.30	3.50
Eta	.12	.14	.18
F	5.57	7.50	12.53
d.f.	4;1485	4;1463	4;1468
p	<.001	<.001	<.001
Age			
16 to 20 years (N=175)	-41	2.82	2.81
21 to 29 years (N=584)	-27	3.01	3.06
30 to 44 years (N=657)	10	3.17	3.34
45 to 54 years (N=448)	9	3.16	3.32
55 years or older (N=292)	23	3.20	3.36
Eta	.23	.11	.23
F	20.72	4.61	20.91
d.f.	4;1486	4;1465	4;1469
p	<.001	<.01	<.001
Sex			
Men (N=1336)	0	3.17	3.28
Women (N=818)	-6	2.99	3.11

See footnotes on page 57.

MEAN JOB SATISFACTION IN 1973, BY SELECTED DEMOGRAPHIC AND OCCUPATIONAL CHARACTERISTICS—Continued

Demographic or occupational subsample	Satisfaction measure		
	Overall[1]	Financial rewards[2]	Challenge[3]
Eta	.03	.11	.12
t	1.00	4.39	4.64
d.f.	1492	1470	1475
p	n.s.	<.001	<.001
Employment status			
Self-employed (N=250)	41	3.27	3.75
Wage and salaried (N=1,904)	−8	3.08	3.14
Eta	.19	.06	.29
t	7.34	2.42	11.83
d.f.	1492	1470	1475
p	<.001	<.05	<.001
Collar color[8]			
White (N=1118)	9	3.22	3.33
Blue (N=960)	−17	2.96	3.06
Eta	.15	.14	.21
t	5.69	5.16	8.17
d.f.	1433	1413	1418
p	<.001	<.001	<.001
Occupational group[9]			
Professional, technical (N=323)	25	3.28	3.51
Managers, officials, and proprietors (N=319)	19	3.27	3.54
Sales (N=112)	11	3.02	3.40
Craftsmen and foremen (N=270)	8	3.15	3.33
Service workers, except private household (N=238)	−11	2.81	3.09
Clerical (N=364)	−14	3.17	2.96
Operatives (N=379)	−35	2.98	2.86
Nonfarm laborers (N=72)	−42	2.80	2.92
Eta	.25	.18	.39
F	13.39	6.44	36.57
d.f.	7;1427	7;1407	7;1412
p	<.001	<.001	<.001
Annual income from primary job			
$3,399 or less (N=206)	−10	2.51	3.07
$3,400-$4,999 (N=287)	−29	2.63	2.97
$5,000-$7,499 (N=469)	−17	3.01	3.08
$7,500-$9,999 (N=362)	−8	3.15	3.21
$10,000 or more (N=747)	19	3.45	3.42
Eta	.18	.39	.24
F	10.47	53.62	17.76
d.f.	5;1488	5;1466	5;1471
p	<.001	<.001	<.001

See footnotes on page 57.

[1] A higher numeric score indicates greater job satisfaction. The measure is based on 28 job satisfaction questions, 23 of which referred to satisfaction with particular facets of the job (e.g., pay hours, supervision, etc.) and five of which referred to overall satisfaction (e.g., "All in all, how satisfied would you say you are with your job?"). The 23-facet-specific questions, which are listed in table 6, and the five facet-free ones were combined into two job satisfaction indices. These two components, weighted equally, comprised the overall job satisfaction measure reported in this column. The mean of this measure in 1973 was −2, and its standard deviation was 84.

[2] A higher numeric score indicates greater job satisfaction. The measure is based upon three questions included in the overall measure. These questions referred to pay, fringe benefits, and job security (see table 6). The mean of this measure in 1973 was 3.10 and its standard deviation was .82.

[3] A higher numeric score indicates greater job satisfaction. The measure is based on seven questions included in the overall measure. These questions referred to how interesting, challenging, and self-developing a person's work was and how much freedom the person had in his or her job (see table 6). The mean of this measure in 1973 was 3.22, and its standard deviation was .66.

SOURCE: 1972-73 Quality of Employment Survey.

[4] Orientals and others not identifiable as "black" or "white" have been excluded.

[5] Data in this appendix and related tables in the body of this report are based on a national probability sample of workers that included only one randomly selected eligible worker in each selected household. The sample was thus a weighted one, the weight variable being the number of eligible workers in each selected household. The means in this appendix are therefore based upon weighted data and the N's shown parenthetically are weighted N's. The total weighted N of the survey was 2,157, and the unweighted N was 1,496.

[6] Eta is a nondirectional measure of association between two variables. Since it measures degree of association and not direction, all values are positive.

[7] F-ratios, t-values, etas, and probability levels were all calculated on *unweighted* data. The values reported in this appendix were, moreover, calculated on the assumption of simple random sampling. Exact sampling errors in the survey data reported in this appendix remain to be computed.

[8] Farmworkers have been excluded.

[9] The following occupational groups have been excluded because of small N's: Farmers and farm managers; farm laborers; and private household workers.

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